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FIRE ENGINEERING

The Journal of the Fire Protection Profession Since 1877

Member

MAY, 1941

Vol. 94, No. 5

Thousands Were Forced to Evacuate Their Homes When Brush Fires Broke Out in Massachusetts and New Jersey

A CASE SHEPPERD MANN PUBLICATION

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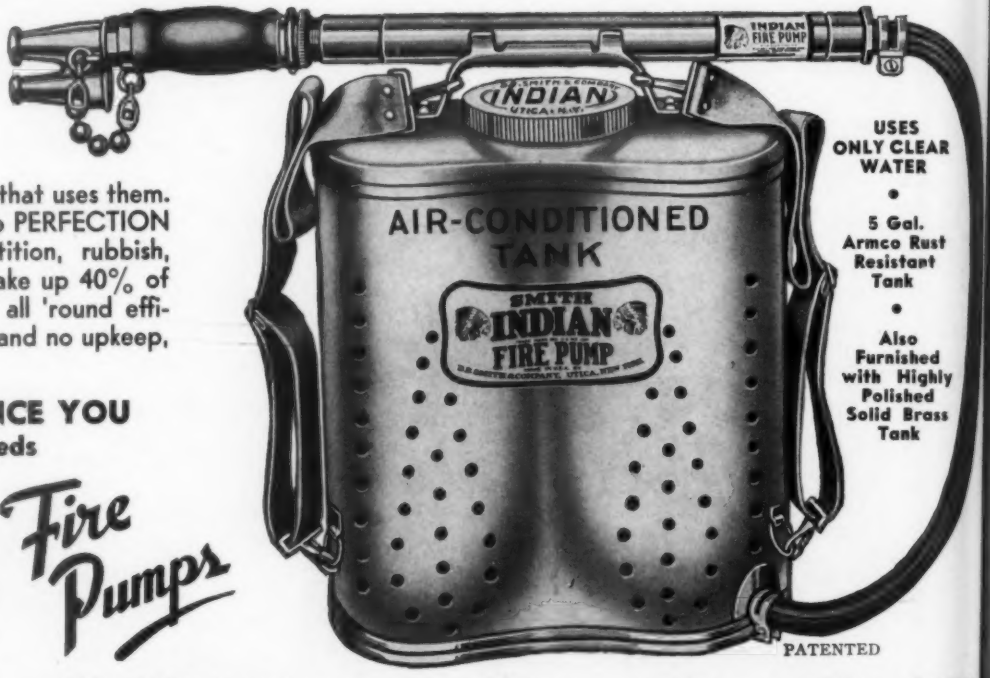

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FIRE ENGINEERING

A Consolidation of Fire and Water Engineering, The Fire Engineer and Fire Protection

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FRED SHEPPERD
Editor
N. N. WOLPERT, *Assistant Editor*

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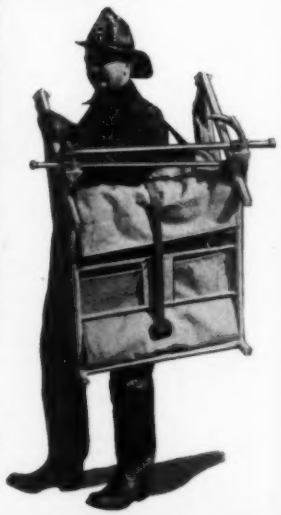

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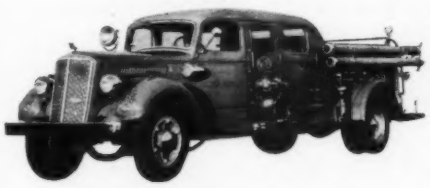

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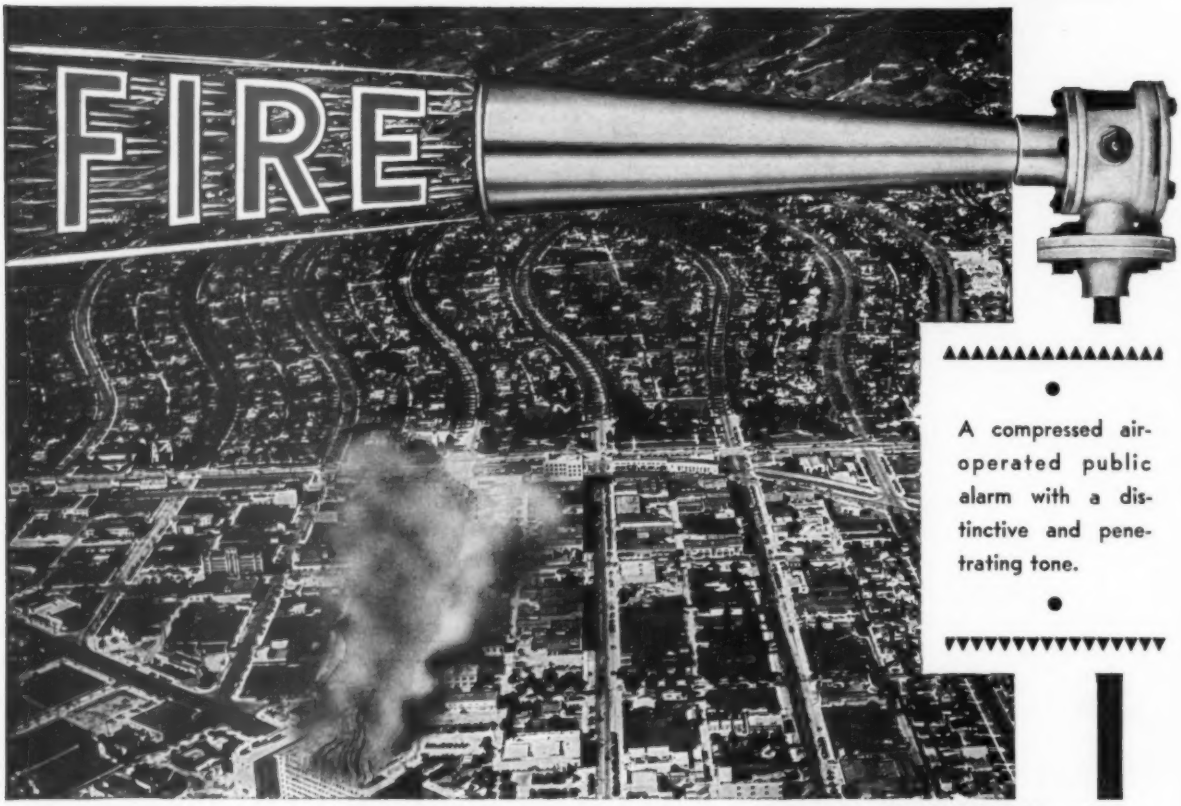

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MAY, 1941

FIRE ENGINEERING

VOL. 94. NO. 5

With the Editor

Wartime Fire Defense In London

On October 22nd of last year, the New York Fire Department sent three of its memers, Battalion Chiefs F. J. G. Wedemeyer and Daniel A. Deasy, and Fireman George T. J. Scott, to London to study and observe wartime fire fighting methods in that and other British cities. They returned to New York on January 14th of this year.

After two months of arduous work, the report of the group was completed and presented to Mayor F. H. LaGuardia of New York City. He turned it over to the United States Conference of Mayors, of which he is President, and the Conference has had it published in book form.

The book, containing seventy pages of text and twenty-six pages of illustrations, consists almost entirely of brief reviews of British methods in handling emergencies—fire fighting, damage to water supply, gas, electricity, telephone, etc.—incidental to aerial attack with high explosive and incendiary bombs, and recommended procedures for American fire departments for handling like matters.

A lot of instructive material is presented, boiled down into seventy pages. Such a severe abbreviation makes the book somewhat heavy reading. But to the fire department official who must plan for meeting possible air attacks, it will prove very helpful. Anyone expecting to get a thrill in reading it will be disappointed.

The authors' recommendations are apparently based upon the assumption that the intensive and prolonged raids over London and other British cities might be duplicated here, which even the most pessimistic military authorities admit is impossible, due to the 3,000 miles of ocean which separates the United States from Europe. If, therefore, the recommendations as given are carried out, cities on this side of the Atlantic will certainly be prepared for any eventuality.

Chiefs Deasy and Wedemeyer doubtlessly had a far more interesting tale to tell, but with space limitations and diplomatic restrictions, they were forced to confine themselves strictly to technical details.

The foreword of the book states: "The report is being made available, through the United States Conference of Mayors, to the municipal executives and fire departments of these cities."

Yes, it is being made available to fire chiefs at $3.00 per copy.

If Mr. LaGuardia were really sincere in his desire to serve the fire chiefs, it seems to us that he should have made the material available to the International Association of Fire Chiefs, who would have published it

and placed it in the hands of all fire chiefs without the $3.00 per capital assessment. Under present plans, the book should prove a good revenue producer for the Conference of Mayors. But the Fire Chiefs won't like the idea of digging down into their jeans for $3.00 which an Association made up of their mayors is selling them at what appears to be a stiff price.

75 Years Of Service

This month the National Board of Fire Underwriters will celebrate its seventy-fifth anniversary.

Though purely a fire insurance organization, the activities of the Board have had a marked effect on the fire service, and a highly beneficial one at that.

Probably of greatest importance is the work of the Underwriters' Laboratories, where tests are conducted and specifications are set up for devices and materials in order to eliminate hazards to life and property which they might otherwise possess. Were it not for the splendid regulations and specifications formulated for electrical equipment alone, the number of fires annually traceable to this source would be many times more numerous than they are today.

The engineering surveys of the fire defenses of cities, made periodically by engineers of the Board, point out weaknesses in the fire department and water supply, and offer sound suggestions for correcting these weaknesses.

The compilation and publication of the National Board's Building Code has had a marked effect in bringing about safer building construction. Its general adoption by cities throughout the country is evidence of its merits.

The formulation and promulgation of standards for the installation and use of protective devices has resulted in the safeguarding from injury and destruction by fire of lives and property to a marked degree.

The Committee on Incendiarism and Arson, cooperating with the fire service in investigation of suspicious fires, has brought about a large reduction in arson losses.

Of particular interest to the fire service has been the helpful cooperation offered by the National Board to the International Association of Fire Chiefs. It has aided in no small measure in the development of firemen's training programs, sponsored by that organization. Qualified lecturers have been provided and educational material prepared by the Board has been made available without cost.

The National Board's consistent support of civil service in fire departments has been materially effective in bringing more departments under the merit system.

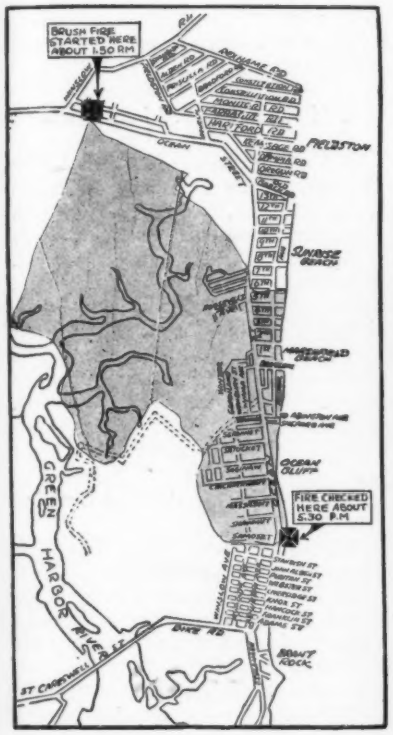
The Board and the Fire Service, although concerned primarily with their own problems, are nevertheless working toward the same end—conservation of human life and property.

The tremendous contribution of the Board toward this end is becoming generally recognized. The contribution it has made is a priceless one to national welfare. It has been a potent factor in improving fire protection of municipalities during its long and useful life. And congratulations for continued success are in order.

Fred Sheppard

11 States Fight Brush Fires

New Jersey and Massachusetts, Each Have $1,000,000 Fires—Soldiers Aid Firemen



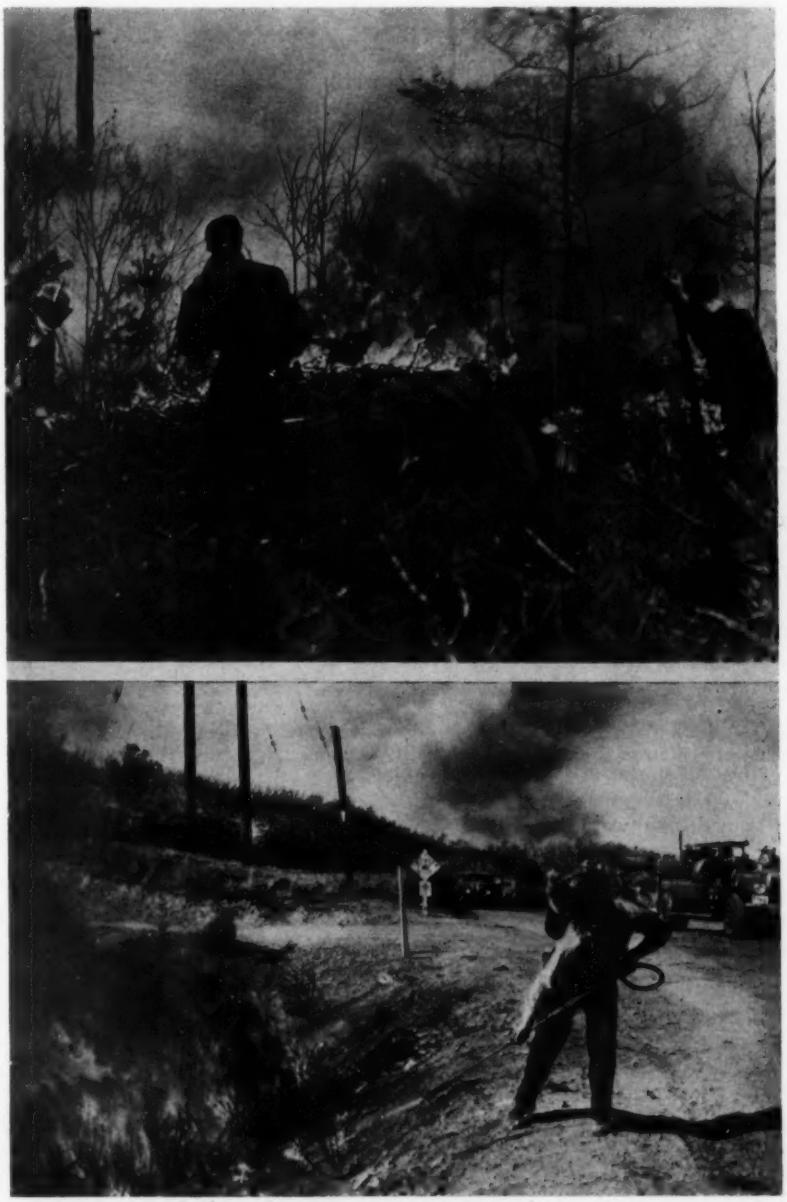
Shaded Area of This Map Shows the Course of the Marshfield Fire

FIRE FIGHTING forces of eleven eastern states were hard pressed in April as Spring brush and forest fires swept through parched sections destroying houses and other structures in their path. The situation was most critical in New Jersey, where over 84,000 acres of woodland were blackened, with an estimated damage including property damage, of over $1,000,000. Other states affected approximately in order of losses were Massachusetts, Connecticut, New York, Pennsylvania, Virginia, West Virginia, Maryland, New Hampshire Vermont and North Carolina.

Weather Blamed for High Losses

These fires were said to be the result of the combination of weather conditions, ground conditions, and human activities. A dry spring has increased fire hazards due to tinder-dry woods and brush. Under the classification of human activities are listed such things as people burning brush, careless smokers, railroad trains throwing sparks, and malicious setting of fires.

One large fire in Monmouth County, N. J. brought out 5,000 soldiers from Fort Dix to aid in combatting the blaze. At one time, a unit of about eighty soldiers was partially encircled while fighting a blaze near Pinehurst, but they were guided to safety by instructions dropped to



Upper, C. C. C. Boys Lend a Hand in Fighting Brush Fires in Massachusetts, and Lower, Backfiring a Brush Fire with a Fire Pump Filled with Kerosene

them by an airplane. This fire swept to within five miles of Lakehurst, destroying about fifty-one homes, but it did not endanger the Naval Air Station.

In New York State, approximately nine fires taxed fire fighters, but no homes were reported destroyed. In Suffolk County, over twenty thousand feet of lumber and a large number of fowl were destroyed as a bad fire swept through the Brentwood area. It was reported that five homes were burned to the ground.

Smouldering Ruins Are All That Remains of the Seaside Resort at Ocean Bluff

This airplane photo shows the wide path taken by the fire which razed nearly 500 homes. Only the four stone walls were left of the St. Anne's-By-The-Sea Church, which may be seen in the upper center part of the picture.

In Marshfield, Mass., although no accurate count of the number of buildings and homes destroyed had been made, it was estimated that between 400 and 500 were leveled in the Ocean Bluff section by a runaway brush fire, causing a loss in excess of $1,200,000.

Wooden Roofs Spread Fire

A grass and brush fire in waste land back of the heavily built beach front, combined with inadequate water supply, lack of fire fighting equipment and a high wind, spelled the doom for this old summer resort. Within an hour after the brush fire had started, the homes in Ocean Bluff were subjected to a hail of burning embers. Wooden roofs immediately caught fire. Chief Silas S. Wright of the Marshfield Fire Department had scarcely reached the scene of the fire when a number of houses were enveloped in flames. He immediately sent out a call for help to towns within a thirty-mile radius of Marshfield and received prompt response.

The fire fighters tried to stem the rush of the flames by getting to the lee of the blaze, but it was a losing fight. So intense was the heat that it was necessary for the men to evacuate their positions, leaving behind thousands of feet of hose and, in one case, a fire truck, owned by Duxbury, a neighboring town. The lead encasing telephone cables melted and formed a hail of molten lead which sprinkled the fire fighters.

Flames Spread Rapidly

Fire officers reported an astounding speed of destruction of buildings involved. There seemed to be no period of burning, merely a puff of flame and then a heap of flaming ruins. Flames would jump a block and even two blocks at a time, and then destroy the buildings and houses between the two flame fronts. Within six hours after the fire was discovered, the Ocean Bluff area was flattened, except for a few lucky homes that were only seared by the fire. A lucky shift in the wind gave the firemen a chance to make a permanent stand and prevent the further spread of the fire to Brant Rock fire zone.

Usually the marshes and waste land are burned early in the fire season as a preventative measure. This year, the town decided that since there had been no serious fires in the past few years, that it would not be necessary to burn the marshes, thus saving the $300 usually appropriated. A saving of $300 will cost the residents about $1,200,000.

Aid Rushed from Many Towns

Aid was given the Marshfield Fire Department by men and apparatus from Kingston, Duxbury, Plymouth, Brockton, Falmouth, Bourne, Norwell, Cohasset, Scituate, Rockland, Whitman, Abington, Middleboro, Hanover, Shawme Forest, Myles Standish State Forest, State Conservation Department, Bridgewater, Weymouth, Hingham, Braintree, Randolph, Holdbrook, Hull, Wellfleet, Barnstable, Mashpee, Plympton, Carver, Pembroke and Hanson.

25 Homes Lost in Arundel County

Among the many forest fires which burned in Maryland on April 20, the blaze in Anne Arundel County is believed to have caused the most damage. This forest fire burned on a mile-wide front for a distance of over ten miles, destroying more than twenty-five homes. As the blaze neared the city of Baltimore, six engine companies raced out to meet it. All available apparatus in the county was called out, augmented by soldiers and sailors from Fort Meade and the Naval Academy.

Many persons in shore developments had to flee out onto the Chesapeake Bay to escape the flames. Apparatus raced everywhere in trying to cut the advance of flames near the numerous summer cottage settlements. One company alone, the Arbutus Volunteer Fire Department of Baltimore County, responded to sixteen house fires in the thirteen hours during which they battled the flames.

Spread of the flames was blamed on the shortage of forest fire equipment, as crews of broom and shovel men scattered before the lightning advance of the "crown" fires. Anyone who had a pump can was busy the entire time he was at the fire. At one location, a child became entangled in briars through which the fire was advancing. All efforts to douse the fire with buckets of water, or to get at the child were fruitless. Volunteer Fred Gick of the Arbutus company

arrived with an Indian pump can and extinguished the fire immediately. This was only one instance of the many narrow escapes at this fire.

With almost a score of volunteer fire chiefs dashing about and giving conflicting orders, many of the volunteer companies at the fire disregarded them entirely and placed themselves under the command of Battalion Chief Harry Dolle of the Baltimore Fire Department, who arrived with six city engines.

Other serious forest fires in Maryland on that date were—

Western Maryland—Garrett Co., 1,000 men mobilized to fight one serious blaze.

Eastern Shore—8,000 acres in Wicomico Co.

Southern Md.—2,000 acres in St. Mary's Co.

Also a general alarm in Maryland near District of Columbia.

When the Army Took to Its Heels

Draftees from Fort Dix had to retreat when the fire suddenly changed its course. These men were part of the unit which was later rescued through instructions dropped by airplane.

One-Man Department Disbands

Francis E. Ingals of Guilford, Conn., known for nearly twenty years as "Connecticut's One-Man Fire Department", has sold his entire fire-fighting equipment to the Meriden Fire Department for $6,500.

Ingals, lone resident of Chaffinch Island, south of Guilford, attained nation-wide publicity in 1923, when he drove his newly-constructed Model T Ford Truck, fully equipped for fire-fighting, into town and hooked in to a "plug" on Guilford's main street. A mechanical engineer by trade, Ingals made the apparatus entirely alone and unknown to the town's residents.

Since that time, he has been answering all fire calls in Guilford and neighboring towns. The garage at the rear of his home was equipped with fire signal systems and connected directly with the Guilford telephone exchange. A huge siren on the roof of the "fire station" sounded all alarms received by him.

"Chief" Ingals—the title conferred upon him by his neighbors some years ago—disbanded the department in which he took so much pride and spent over $30,000 to equip, following a dispute with the Guilford town officials over a $200 repair bill. He indicated, however, that the repair bill which he believes the Guilford authorities ought to pay—it involved a broken crank-shaft caused by responding to a fire—was not the principal reason for his decision.

"At the end of June I'll be sixty years of age and a fireman can't last forever," he said. "Also, I thought it was a good time to sell. If I waited longer I might not get the price."

Several towns including New Britain and East Haven submitted figures for the purchase of Ingals' outlay, according to Fire Chief John F. Maroney of Meriden. When new, the apparatus was valued at $25,000. One pumper, less than four years old, is equinped with a 1,000-gallon booster tank, a portable lighting system, inhalators, pulmotors, gas masks and 1,200 feet of 1½ hose. The original cost of the pumper when new, less the accessories, was $14,000.

Admitting that he didn't "exactly want" to give up his equipment, Ingals said the sale did not necessarily mean he was quitting altogether. He believes that with manufacturing concerns busy at defense work, he may be able to start in the business of assembling fire trucks for small communities and advising them on fire-fighting matters.

Permanent Department for Sault Ste. Marie

This year, Chief F. F. Trombley, of the Sault Ste. Marie, Mich., Fire Department asked the city commissioner for a paid fire department to replace the volunteer system which has protected the city in the past. In addition to this, he recommended the purchase of a new pumper and the installation of a new fire alarm system.

The commission granted him six permanent men for the present, authorized the placement of thirty-two new fire alarm boxes, and five miles of new aerial fire alarm wire. Examinations will be held for prospective firemen before any full-time men are appointed.

Wool Storage Fire at Boston

A five-alarm fire, one of the worst fires in South Boston in twenty-five years, swept through wooden buildings which were used as warehouses for storing shoddy wool. Fanned by a brisk wind, it was not long before the fire had spread to almost a dozen buildings.

When District Chief J. J. Kane arrived with the first fire companies, the wool storage building was a mass of flames. In quick succession he sent three more alarms. When Deputy Chief W. F. Quigley arrived, the fire had ignited buildings across the street from the warehouse, besides igniting the fire hose, which hampered firemen in their fire fighting.

He sent in a fifth alarm which brought the total apparatus at the scene to thirty and the number of men to 200. Practically every engine in the city was moved for cover-in duty.

Although it is not determined definitely, the fire was believed to have started from a grass fire.

Firemen Fighting to Bring the Flames Under Control as They Swept Through the Wool Storage Buildings and Garages in South Boston

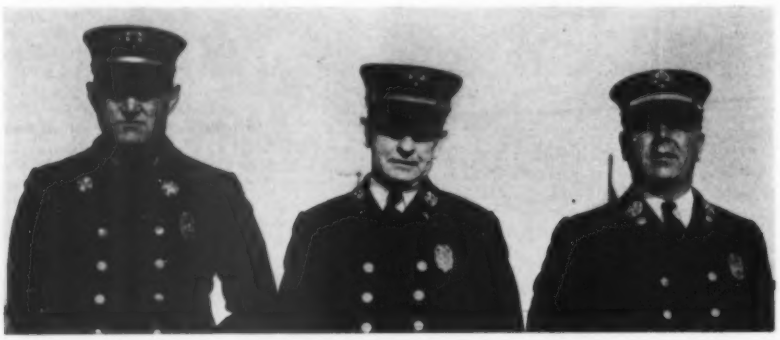
CAMP EDWARDS ORGANIZES PROTECTION FOR RESERVATION

Most of 1,500 Camp Buildings Erected Around a Square—Camp in Midst of Large Forest Tract

By Alton H. Blackington

RESIDENTS of Cape Cod who visioned an unprecedented fire hazard at Camp Edwards, where nearly 1,500 buildings have risen almost overnight among the scrub pines, are reassured and satisfied that if fire should come to this Massachusetts Military Reservation, the authorities are well equipped and ready to handle the emergency.

Fire Marshal, Captain Robert Edgar of the Quartermaster's Corpsy, has as his assistant Lieutenant Sutherland. The personnel of the camp's fire fighting forces is commanded by Chief Elmer H. James of New Bedford, Assistant Chief Clarence Gibbs of Buzzard's Bay and Charles F. Dooling of Beverly. Working under the direction of these three chief officers are six civilian firemen, with rating equal to hosemen. They serve as instructors for the seventy-one soldiers who make up the department.



Fire Chiefs at Camp Edwards

Left to right, Asst. Chief Clarence Gibbs, Buzzards Bay; Chief Elmer H. James, New Bedford; and Asst. Chief Charles F. Dooling, Beverly, Mass.

Quadrangle Construction

Of the camp's buildings, 1,200 are built around a quadrangle approximately a mile square. There is a fire station at each corner, and a fifth station located in the hospital area. At present, there are nine pieces of apparatus, consisting of three 750-gallon and one 500-gallon American-LaFrance pumps, one Liberty 500-gallon pump, two General Ford Trucks of 500-gallon capacity, one 500-Mack pump and one station wagon for use of the Chief on duty. In addition to this, the army has borrowed equipment which was on the post when the government took over.

This extra apparatus consists of one Liberty tank truck of 750-gallon capacity and one 450-gallon brush breaker that formerly belonged to the Massachusetts Military Reservation. The last two mentioned pieces of kit are in Station 3 directly under a towering tank that holds 400,000 gallons of water.

Provision has been made for an adequate water supply for any emergency. Two tanks at the Northwest Corner hold 400,000 gallons each, and two more in the Southeastern Section area hold 400,000 and 205,000 gallons respectively, or a combined total of 1,405,000 gallons. The major pumping stations can deliver 5,000 gallons per minute from Lane gravel packed wells.

The Osmond Pond section has one electric and one diesel pump; the Northeast Well area has two electric pumps, and there are three additional pumps in the Southwest Well area. Tests have proved that all of the 1,000 gallon pumps actually deliver 1,200 gallons per minute, and the 700 gallon pumps produce 900 gpm.

All of the 150 hydrants are equipped with steamer connections and are strategically located in the camp. The fire alarm system is a complete telephone system with seventy stations. The telephone boxes are located on poles suitably marked with a red band. They are connected to a switchboard in the alarm room at headquarters. Dispatching is done entirely by telephone. An annunciator indicates the number of the box where the phone has been lifted off the hook so that, if the sender of the alarm should be too excited to give details concerning the location of the fire over the phone, the annunciator indicates the number of the box at headquarters. Civil service operators handle all calls and alarms.

Amount of Apparatus Increased

This arrangement is the existing army set-up. Until a few weeks ago, the Walsh Construction Company was responsible for fire protection. At that time, during the actual construction of camp buildings, there were but three pieces of apparatus manned by fifty-one civilian firemen under the direction of Chief Gibbs. From time to time, new apparatus was added as the Quartermaster equipment began to arrive. The two pieces that were leased by the construction company have since been returned to the owner.

It is expected that later an alarm transmitter will be installed. This will probably be manual rather than fully automatic.

Camp Edwards is situated in the midst of twenty square miles of forest land. Part of this has been burned over, particularly in the impact area of the big gun range, as protection against forest fires in the government area, and in the adjoining twelve square miles of Shawnee-Crowell State Forest, where the State of Massachusetts maintains additional forest fire fighting equipment.

Standbys of the Fire Protection System

Water tanks at Camp Edwards hold 400,000 gallons each or 1,405,000 gallons in all. In the foreground are fire apparatus from headquarters.

Assistant Chief Clarence Gibbs is a deputy forest warden in Bourne and Sandwich, and is a veteran forest fire fighter. His knowledge of the territory surrounding the military reservation and his long experience in handling fires in the forests of Cape Cod will prove of great value to the army.

To date there have been 140 alarms in the camp, but not a single fire worth mentioning. Assistant Chief Dooling is drilling his new soldier-firemen, and great stress is being laid on fire prevention. Chief James confidently states that in spite of dry forests, he has the situation well in hand.

TRUCK CARRYING 2,500 GALLONS WATER, BUILT FOR RURAL FIRES

Los Angeles County Fire Department Operates New 26-Ton Truck—Carries 1½-Inch Hose for Fog Streams

By Andrew R. Boone

To cope with the many problems of fighting fires occurring in the large area it covers, the Los Angeles County, Cal., Fire Department operates from the Downey station, one of the largest fire trucks ever built. The unit is entirely self-contained and carries 2,500 gallons of water in a ten-compartment tank. The truck weighs twenty-six tons and stands 109 inches high, 100 inches wide and is 363 inches long. It rolls on ten ground-gripping tires.

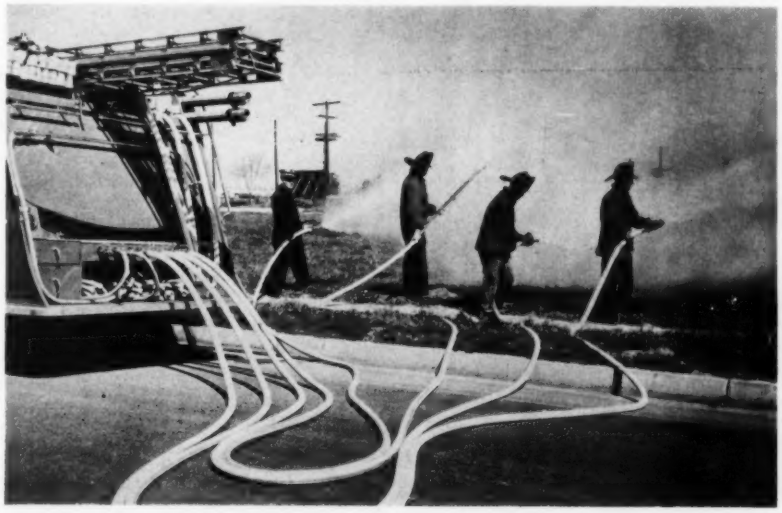
Of further interest is the fact that the truck carries five types of nozzles, a half-mile of hose fed by six valves, two rubber gas masks supplied with air from a hand-operated pump through oil-proof hose, and three ladders. Three searchlights powered by a 1,250-watt generator can be trained on a burning building at night to speed the crew's work.

Large Truck Can Develop Speed

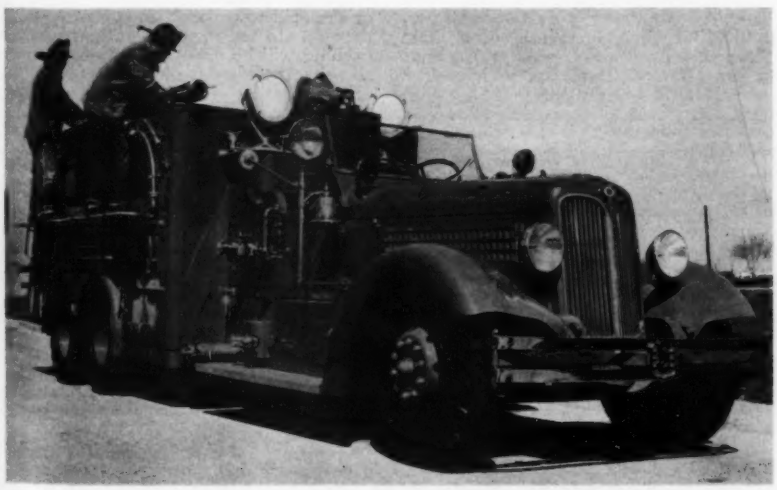
Nor is this elephant-like truck slow. When her 240-horse-power engine pulls the unit away from the station, she accelerates to twenty-six miles an hour within two city blocks. Although regulations prescribe a maximum of thirty-five miles an hour, in tests the monster has hit speeds exceeding a mile a minute. Air brakes applied to huge drums measuring 17¼ x 5½ inches on all six wheels will stop her in a short distance. An auxiliary pumping unit automatically cuts in when air pressure in the braking system falls below seventy pounds, builds it up to ninety, then cuts out again. Between runs, the pump is connected to the station lighting circuit.

Small Size Hose Used

Oddly, this giant hurls comparatively small streams. Although the engine can pump 900 gallons a minute in an emergency, for most fires the crew of five uses only 1½-inch hose, changing the water to fog. Each fog blanket reaches twenty feet forward, fanning out twelve feet wide. To protect the fire-fighters, the nozzles squirt streams back over their faces and clothing. Some also shoot forward a straight stream within the fog.



Four Firemen Advancing Across a Field of Burning Grass
Notice the arrangement at the rear for connecting hose lines.



Side View of the Monster in Fire Apparatus Design
In spite of its weight, this truck can travel at sixty-five miles an hour. The rear axle assembly alone weighs 7,500 pounds and the truck rides on ten ground-gripping tires. It carries six hose lines totalling 2,600 feet.

Downey's smoke-eaters must battle all sorts of blazes, many of them in rural areas too far from city mains to permit a constant water supply. Because they must fight fire in ranch homes, barns, refineries, laboratories, oil wells and grain fields, the big tank is provided. When water in a pond, drainage ditch or irrigation canal is available, a suction hose is lowered. Then the engine pumps this supply either directly onto the flames or through the tank.

Signal System for Communication

Not yet has this unit met her match at a blaze. Her crew trains like athletes, trying always for short-cuts which will slice a few seconds from running and unloading time. Occasionally, the big truck rolls across plowed fields to shorten mileage. She's so huge, electrical buzzers exchange signals between the driver and men riding the rear step.

Three hundred feet before reaching a

fire, two or three firemen drop off, dragging hose with them. They hit running, and by the time the engineer is opening the pump, the firemen have trained their nozzles on the blaze and pressure has filled the lines.

Looking Down on the Top of This New Truck

Two 500-watt floodlights are carried for night operations. A buzzer system is used to communicate from the driver to the men on the rear step.

"When we know we've got to stop a fire with our truck supply, or else," says Capt. R. C. Jones, "we fight like the Scotch to make every drop do its duty." At sunset the other evening, a resident, after trying thirty-five minutes to halt a fire in his kitchen, called for water. As the big red truck started, its crew could see across the fields 3½ miles away, flames rising from the Brachares roof. The house was entirely involved. Yet seven minutes from the time the rancher placed his call, four lines were pouring mists and straight streams into the blaze.

Engine Twenty is by far the largest of twenty-seven tank-trucks built in recent years for Los Angeles County's Department of Forester and Fire Warden. Each is assigned to an outlying district. At Santa Fe Springs, three miles from Norwalk, and heart of a rich oil field, county firemen congregate periodically to practice walking into blazing rooms, battle blazing oil-filled ditches, snuff out roaring tanks. Using no chemicals, they advance behind the protective fog of hose lines.

To make sure nothing will stop her, each set of rear wheels is independently driven. Twice recently in tests, the big red truck moved ahead without faltering as its wheels sunk eight inches into the soft earth of a plowed field. When one set began to spin, the other took a husky bite and pulled the truck forward.

Chief Hugh Leslie Dead

On March 31, a large number of fire chiefs, firemen and friends from all parts of Washington, gathered in the city of Auburn, Wash., to pay tribute to former Chief Hugh M. Leslie.

Hugh Leslie was born in Kansas in 1904, and in 1913 he settled with his parents in Auburn. After graduating at the early age of sixteen, he joined the Auburn Volunteer Fire Department. He lost no time in enrolling in the Seattle Fire Department Drill School. In 1922, after having completed the course, he was appointed Chief of the Auburn Department. At that time he was the youngest Fire Chief in the nation, being only eighteen years of age.

He became a member of the Washington State Firemen's Association and the Pacific Coast Association of Fire Chiefs, immediately taking an active part in the activities. In Yakima in 1924, he was elected Trustee of the Washington State Firemen's Association; two years later at Walla Walla, he was elected Second Vice-President of the association and in fact, he presided over the annual meeting at Everett.

In 1931, Chief Leslie was compelled to resign from the fire service by reason of ill health. Two years later, he was appointed Advisory Chief of the Auburn Department, but he requested the abolition of this office in 1938, in order to give the Chief a free hand.

In 1936, when the Washington State Firemen's Association met at Tacoma, he was elected Secretary, which office he held until his death.

Firemen Leap to Safety

Chief George Sinclair of Toronto, Ont., and eight of his men had to leap to safety, to escape injury from a falling wall when fire developed in a three-story stone building housing the Imperial Bank.

The night engineer of the bank was sleeping on the third floor. He claims he heard an explosion and rushed down to investigate. A china warehouse on the second floor was filled with smoke. He tried to use a standpipe, but was driven out by the heat. Meanwhile a pedestrian, who has seen the smoke, turned in an alarm.

When Platoon Chief Ollie Poole arrived with the first companies, he found flames issuing from the top floor and the roof almost hidden by dense clouds of black smoke. A second alarm was turned in at once. Chief George Sinclair responded. Firemen were driven out of the bank building by an explosion. Several men were trapped on the third floor and had to chop a hole into an adjoining building in order to escape.

After thirty minutes of hard work, it appeared that the fire was under control. Another blast sent the flames soaring again. Shortly after men were ordered off from their ladders, and an aerial moved, the front wall of the building collapsed.

Equipment used included two high pressure hose trucks, five hose trucks, one salvage wagon, four aerials, two city service trucks, one gasoline truck, and one motor shop, plus emergency cars.

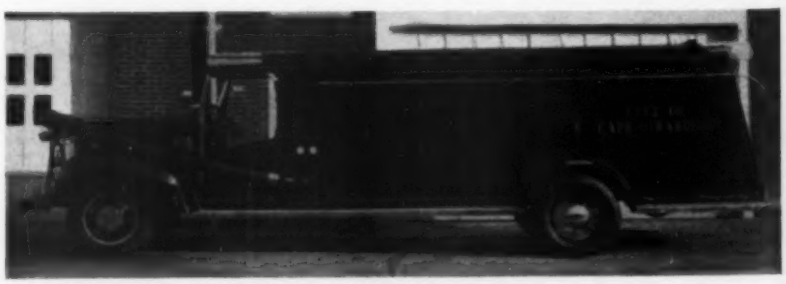
JOHN KARL LEE.

Short School for New Mexico

The Annual Fire School of the New Mexico State Firemen's Association will be held in Hot Springs, N. M., May 26 to 28. The program committee has completed plans for a very interesting three-day meeting.

Topics to be discussed will be, use of minor equipment, industrial safety, firemen and state defense, inspections, what causes fires and explosions, hydraulics, and the work of the Federal Bureau of Investigation.

There will also be training evolutions at the drill tower and some time will be devoted to salvage operations. One evening will be given to motion pictures showing training evolutions as used in other states.



New Ladder Truck in Service in Cape Girardeau, Mo.

The Cape Girardeau, Mo., Fire Department, under the leadership of Chief Carl Lewis, recently placed a new ladder truck into service. The truck has no bolts, but is electrically welded throughout. In the body is a 1,000-foot capacity hose bed, and a 210-gallon booster tank, the top of the tank forming the floor of the five large compartments extending through the full width of the body. The booster reel is mounted under the hose bed and feeds out through the rear of the truck. A 500-gallon centrifugal pump is mounted under the seat with the pump gear on the floor boards of the cab. Ladders, totalling 157 feet in length, are carried overhead. All necessary fire department tools, and foam generator, are included as part of the equipment.

MAINE STRESSES ITS PROGRAM OF FIRE AND SPECIAL DEFENSE

Chiefs of State Hold Quarterly Meeting at Westbrook—Chief Sanborn, State Administrator, Speaks

By J. W. Randlette
Chief, Fire Department, Richmond, Me.

THE quarterly meeting of the State Association of Fire Chiefs of Maine was held at Westbrook on April 8 with the Westbrook Fire Department and the S. D. Warren Company's fire department being the hosts. The meeting was opened at 11 a.m. by Stanley G. Turner, President. A fine address of welcome by Mayor Roscoe F. Libby, Westbrook, welcomed the visitors and Chief Z. F. Drouin of Lewiston, responded. The Mayor said in part, that he considered it an honor to represent the city chosen for the meeting of so important an organization as the Fire Chiefs of Maine, and congratulated the association for its accomplishments in the past.

History of Westbrook Department

The history of the Westbrook Fire Department was related by Chief Edward A. Reny, who in his remarks, expressed regret that the very early history of the department was not available. However, he had been able to secure data back as far as 1891, when the apparatus consisted of a hand drawn hand tub, called the "Rough and Ready," and the water supply was obtained from cisterns built in the ground, the hose was 2½-inch leather hose. Ladders were not provided and church bells furnished the alarm system.

The first improvement in the equipment came in 1891 when two horse drawn hose wagons were purchased, and a ladder truck in 1893. Horses used were from local livery stables as needed, and were not purchased by the city until 1899. The first motorized piece of apparatus was purchased in 1916. The department now consists of three engineers, sixty-nine call men, and four permanent men. The complete history was incorporated in the records of the association.

County Work for Fire Defense

Chief Eugene Ricker of the Saco Fire Department gave a paper on "County organization of Fire Defense" as set up by the Committee on National Defense. In his talk Chief Ricker outlined the operation of the county organization and urged all chiefs to send in the information desired by the County Administrator. Particular stress was laid on the importance of every chief making sure that all hose threads in his department conformed with the national standard.

Luncheon was served in the American Legion Hall dining room, where the meeting was held. The association was the guest at luncheon of the Westbrook Rotary Club.

Following the luncheon, Chief Oliver T. Sanborn of Portland, State Administrator of the Fire Defense Program spoke on the reason for the fire defense program and explained to the group that this program applied not only in the case of an invasion of the country by an enemy, but also in the case of a major disaster, conflagrations, floods, earthquakes, etc. The organization is state-

Chief Oliver T. Sanborn

wide in its scope under the direction of State Insurance Commissioner, under whom is a State Administrator and his deputy, and assistant administrators. The state is divided into sections, north central and east, and the various counties are assigned to a certain section. Each county has a county administrator, whose duty it is to organize his area. A complete inventory of each class of equipment of every fire department is filed with a sectional administrator for that section. Through him, any necessary equipment may be dispatched in the shortest possible time and route to give the required assistance.

Chief William H. Clifford of Cape Elizabeth made a report on the legislative session in relation to the proposed Fire Works Law and the appearance of the members of the association before the legislative committee.

State Defense School Started

Chief J. W. Randlette, reported to the association that a defense school has been organized in the state under the National Defense Program, for the benefit of water works and fire officials. The schools will continue until July 7 with classes each week: Monday at the University of Maine at Orono; Tuesday, Augusta Water District Shop, Augusta; Wednesday, Auburn Water District Office, Auburn; Thursday, Portland Water District Shop, Portland, and Friday, Town Hall, Kennebunk.

Chief Sanborn, asked the association to ratify the donation made for the Brockton Disaster, by the directors; this was ratified.

Chief William H. Clifford, 3rd, made a report on the apparatus in connection with the fire defense plan, and stated that the following Chiefs had been assigned county administrators. Eugene T. Ricker, Saco; William H. Clifford, 3rd, Cape Elizabeth; Solomon A. Mercier, Rumford; Richard Frates, Bath; Francis X. Pendelton, Belfast; Edward Hutchins, Boothbay; George R. McCurdy, Augusta; Charles G. Griffin, Skowhegan; Victor Huart Farmington; Allen Payson, Camden; Z. F. Drouin, Lewiston; Leon B. Door, Presque Isle; Joseph P. McCosker, Bangor; Frank Pierce, Bucksport; Frank H. Whittier, Dover-Foxcroft.

Joseph A. P. Flynn, Chief Supervisor, Insurance Department, Arson Division, presented a paper on the Fire Defense Program.

Chief Tierney Tells About I.A.F.C.

Chief Daniel B. Tierney, Arlington, Mass., Secretary of the International Association of Fire Chiefs, and guest of the association, gave a short talk on the membership in the I.A.F.C., Association and the coming convention in Boston in August. Chief William H. Hill of Belmont, Mass., was also a guest of the association.

Chief Soloman A. Herman, of the S. D. Warren Company gave an interesting talk on "Defense Preparations in Industrial Plants".

At 6 p.m., a banquet was served in the Legion Hall, Chief S. A. Herman was toast master. Vice-President Hyde of the S. D. Warren Company spoke. The State Insurance Commissioner, expressed the regrets of Governor Sumner Sewall for his inability to be present at the meeting. He also expressed his appreciation of the completion of the fire defense program and of the work that the fire chiefs are doing. He said in part that the insurance business was the largest industry in the United States and that in Maine alone, $35,000,000 are spent annually in insurance premiums of all classes. None of the companies doing business in Maine had failed. He said the fire defense organization was the first organization to become perfected in Maine, without orders of the Commission, and this would go down as one of the major accomplishments of the fire defense forces of the state. He expressed his views of the somewhat disturbing factor of incendiary fires, and that the arson squad would be enlarged and investigations carried on a larger scale. Eighty members and guests were present at the evening banquet, about 125 at the noon-day luncheon, and seventy-five active members at the business session of the association. The next meeting will be held in Rockland on July 8.

Howe Named Dalton Chief

Norman Howe has been named Chief of the Dalton, Mass., Volunteer Fire Department succeeding the late Chief John Hardiman. Chief Howe has been serving as Acting Chief since Chief Hardiman's death several months ago.

SELECTION OF OFFICERS BY VOLUNTEER FIRE DEPARTMENTS

Attention Directed to Outmoded Plan of Making Appointments Because of Political or Social Reasons

By James J. Deasy*

FIVE years ago, a village in New York decided to honor its volunteer Chief who, because of local rule, was being retired from that office. It had arranged a rather large department gathering at which the outgoing Chief was to be presented with a watch so that he might know how well he was thought of by the members. After that part of the program, the new Chief was to be greeted.

I was invited to speak at the department banquet.

The presentation of the watch was a memorable event. The one who was making the presentation, told of the virtues of the retiring Chief. He mentioned the increased efficiency of the department, the surprising reduction in the fire losses in the village, how never during the regime of the Chief had a fire developed beyond the building of origin. He went on and on. Scarcely a virtue of a department officer that was not credited to the retiring Chief. In fact, I looked up at the man, for here, thought I, was a time that I was gazing at a genius.

Change from Known to Unknown

Not one word was said about the man who was to take the place of the old Chief. It soon became evident that the Chief's title was being transferred from a known to an unknown quantity. An efficient man was being demoted; a man of unknown virtues was being promoted. All this was taking place because the village department had a rule that a Chief could hold office for only two years.

It now came my turn to speak. Even though my topic had nothing to do with the change of officers, I could not resist the opportunity to comment on the state of affairs. Members of the various village fire companies made up the audience.

I asked "If the Chief who is going out, is all that you say he is, why in hell are you getting rid of him?"

The applause that followed convinced me that I had reached a weak point in their department structure. I followed my opening by pointing out a weakness in volunteer fire departments. This weakness, the selection of officers, could be corrected by demanding that all line officers have diplomas from a zone or county firemen's school, if there was such a school within a reasonable distance. If there were no such school, then the selection of officers could be based on a competitive examination on fire fighting tactics and strategy, and department problems.

The selection of a Chief or even a company officer, because he is a good fellow or has friends is a stupid practice. It will eventually be recognized as such in every volunteer department. Officers should be chosen for one qualification. That one should be proven ability in direction and training of his men; in his ability to direct fire fighting operations in an efficient manner; and to maintain within his department that espirit de corps that is so essential a factor for volunteer unity and efficiency.

Officers Not Interested in Schools

In my experience in instructing at county and other fire schools I have noted a decided lack of interest by officers of the departments of the county where the school was conducted. In relation to the number of companies and communities, there is a decidedly small percentage of officers attending such schools. Is it that they believe they are too well versed in the job? Do they believe that they know it all. If they do, then heaven help the departments or companies that depend on such leadership.

Fire fighting today has gone a long ways—from just arriving at the scene of fire and indiscriminately throwing water till the structure looks as though it had gotten into the path of Niagara Falls.

Fire department efficiency is determined not by the number of fires that are extinguished, but by the data on losses, which, in a majority of cases, are water losses. In evey town, when preparedness is the order of the day, firemen may be called on to protect occupancies of a commercial or factory type that are engaged in the defense program. New developments in the use of chemicals and related materials have created problems of fire prevention and extinguishment.

Men Must Know Their Equipment

Modern apparatus is costly and at times intricate. Its use demands an elementary engineering knowledge. Hydraulics is an essential part of an officer's training and knowledge. Special agents, other than water, are demanded on special class fires, where the use of water would create severe problems of life hazards and fire extension. It is therefore very important that officers have an intimate knowledge of the condition in its relation to the work of the department. County and zone fire training schools are designed to supply such information. In Columbia County, N. Y. a rule has been promulgated that any individual before being eligible to the rank of an officer in a Fire Department, must first procure a diploma from the County Fire Training School. This in my opinion, is one of the most progressive steps ever taken by volunteer firemen. The National Board of Fire Underwriters have strongly endorsed this move.

Volunteer firemen everywhere, must realize that fire fighting and its associated and accompanying problems must be their first consideration. All social, fraternal and political factors should be termed secondary. Fire fighting has gone from just being a job to being a profession.

*Lecturer at the Delehanty Institute, New York City.

Department Presents Flag

In March, the Fire Department of Hillside, Ill., sponsored a program in which they presented a beautiful regulation sized American flag to the Hillside Village Board for use in the Council Chambers. The presentation was made in behalf of the fire department by Chief Theo. Geisler.

Texas is Well Represented at the New York Fire Department School Where Firemen Learn About Incendiary Bombs

Instruction on how to overcome incendiary bomb fires is being given at the New York Fire College, which is open to other fire departments throughout the country. Inspecting a stirrup pump, which is used to fight such bomb fires, are, left to right, Theodore Felds, Director, Harris County, Tex., Emergency Corps; Lieut. J. P. Clooney, Houston, Tex.; Deputy Chief James A. Quinn, Instructor in New York Fire College; Capt. F. E. Jaynes, Houston; Battalion Chief Daniel A. Deasy, one of the three New York City fire fighters who visited London; Fire Commissioner Frank Mann, Houston; Chief D. W. Heath, Houston, and Capt. H. L. Matthews, Houston.

Westchester Emergency Plan Meets

The April meeting of the Fire Chiefs' Emergency Plan of Westchester County, N. Y., was held in the new municipal building and fire headquarters of North Tarrytown on April 16, William Livingston presiding, and Chief Paul Lukovic serving as host.

The fire apparatus of three companies is housed on the main floor, and above are the company rooms, handsomely furnished, with chromium trimmed furniture, rugs, and lamps. Sliding doors fold out of sight to throw the three meeting rooms into one. There are special cloakrooms, lavatories and a fully equipped kitchen.

The New Municipal Building and Fire Headquarters at North Tarrytown, N. Y.

Wm. S. Cashman, Deputy Superintendent of the New York Fire Patrol, was the chief speaker. Assisted by Westchester Firemen, he staged an actual demonstration of salvage work before the members. Commissioner Charles Jahne explained the operations of the plan to new members. Ex-Chief Van de Water, Hastings directed the program.

County Defense Reviewed

Roi Woolley, Chairman, Special Emergencies Committee, reviewed the developments in County defense work and pointed out that of thirty-five prominent people appointed by the Supervisors of the county, at the request of the Governor to act as the county's "Defense Council," not one was directly or indirectly connected with the fire or police service. Only one was in any way related to county government. With communities appointing local defense committees, it was learned that the County's Defense Council was mostly concerned with production problems and had ignored the fire department and the eleven-year old Fire Chief's Emergency Plan, formed and trained to meet disasters of all kinds.

The 185 members in attendance went on record as being opposed to the present county defense measures and left it for its committee to take further action.

A report of the Nominating Committee was read. The slate for the coming year will be practically the same as the past year, with President Livingston to succeed himself. Former Chief Van de Water, first Vice-President who is leaving soon for Omaha, will be succeeded by Charles Jahne. The new Second Vice-President is expected to be Ex-Chief Richard Levino of the town of Mamaroneck.

The members listened to a report on the progress of the British American Firemen's Canteen Fund and the ceremonies attendant upon the presentation of the second canteen to the firemen of England, two weeks previously.

The Special Dinner Committee recommended that the annual dinner in May be held at the Larchmont Shore Club. Much entertainment and an excellent program is promised. Several new sustaining members were taken in, along with a large number of individual members. The Plan now numbers nearly 450 active members.

ROI B. WOOLLEY.

Fire Destroys College Building

An early morning fire swept through the Agriculture-Engineering Building on the Iowa State College Campus, Ames, Ia., causing an estimated damage of about $100,000. The blaze was believed to have started in the corn-cob drying laboratory where a number of experiments have been under way.

Firemen under the leadership of Chief Len Morris brought the fire in the east wing of the one-story building under control, but the fire spread to the space between the ceiling and roof, where it was practically impossible to reach it. Wooden partitions separating the offices from the class rooms caught fire and soon the entire building was ablaze.

Chief F. P. Moore Retires

By action of the city commissioners of Newton, Kan., Chief F. P. Moore was retired on pension after having served nearly thirty years in the Newton Fire Department. He entered the service in 1911 and was made Chief in 1917.

E. C. Warhurst was named to succeed Chief Moore. Chief Warhurst entered the first department in 1907 and was made Assistant Chief in 1918. Among other move-ups resulting from the retirement of Chief Moore was the promotion of F. C. Fagan from Captain to Assistant Chief.

Valona Gets New Fire Station

After Valona, Cal., had purchased a new fire truck, it was found that the old fire house was too small to house it. Work was begun soon after on a new station, and it was finished during the latter part of March.

The one-story, fireproof building is equipped with three automatic opening double doors permitting each of the three trucks housed, direct access to the street. Firemen's quarters and facilities are located in the rear of the building. The walls have been constructed strong enough so that an additional story can be added, if and when it is needed.

Chief Gorey Makes Report

In his annual report to the city officials of Taunton, Mass., Chief Edward F. Gorey recommended the purchase of a new aerial ladder and an additional pump. Chief Gorey has sought the new aerial ladder truck for a number of years, but his request has not been granted. He reported that the condition of the apparatus is much better than last year due to the 1940 program of repair work by department mechanics.

A New Ladder Truck for Wildwood, N. J.

The city of Wildwood has recently purchased and put into service this new ladder truck. Reading from left to right, the individuals shown are: J. E. Eldredge, Chief; G. W. Krogman, Mayor; B. C. Ingersoll, Commissioner; and Harry Witte, Assistant Chief.

Among the Fire Fans

By Otis Smith

A DOUBLE-PAGE spread of photos on the Fire Bell Club of New York, appeared in the February 19 issue of PM, the New York newspaper. An interesting view of the clubroom interior was shown, as well as views of some of the members. There was also a photo of the private collection of Bell Club's Gordon Mullins.

Clarence E. Meek, Larchmont, N. Y., and Lawrie Clark, Newton, Mass., responded to the FIRE FACTS item about the three-wheeled steamer. Mr. Clark reports that the Latta steamer was made in two styles; horse drawn and as a self propelled unit. The self propeller weighed about 22,000 lbs. They could handle two to six hose lines at one time. In 1863, Latta sold out to Lane & Bodley, who in turn transferred the business to Ahrens Manufacturing Company in 1868.

A fire fan club has been organized in Bay City, Mich., according to Fire Chief H. C. Crumb. Chief Crumb states that the Box 65 Club is under the leadership of Dr. L. Fernald Foster, with Jack Davis and Palmer Holmes as Vice-President and Secretary-Treasurer, respectively. Membership is limited to seventeen men, and they will operate a mobile canteen, which will also carry equipment useful at large fires.

West Coast fan items include news from the Phoenix Society, San Francisco's ace fire fan club. On April 7, the San Francisco News started a series of articles on the San Francisco Fire Department. The first aid team of the department performed for the Richmond Lodge, F. & A. M. 375 on March 7. The citizens of the lodge were much impressed, as it was the first time that most of them had ever associated this type of work with the San Francisco firemen.

From "Scrappy" Patterson, Pittsburgh Bureau of Fire, came two clippings, including a page of pictures from the Atlanta, Ga., Journal of March 17. The pictures show how the department works from the pulling of the box, to the last picture, showing the pumper leaving the station. We note that Atlanta's apparatus is on the street within thirty-three to forty-five seconds after the box has been pulled.

Ben Ellis, Boston buff, recently visited the West Coast, Middle West, and Mexico. He reports that Mexico City has a modern fire department of American apparatus, mostly double companies. One steam-driven Merriweather engine is located at headquarters; another horse drawn engine of the same make was sold to Vera Cruz a month or two ago.

Mr. Ellis further reported that members of the Boston Fire Department Auxiliary have been assigned to companies in the city, his own assignment being Engine 4 at Bowdoin Square.

Also heard from were Jack L. Chrissinger, Secretary of Box 35 Associates, Minneapolis, and Jimmie Jackson, Oswego, N. Y. Glen Vogel, 2251 Lawrence St., Denver, Col., would like to exchange photos of apparatus. Mr. Vogel states that he has photos of Denver apparatus George Robertson, 74 Broad St., Danielson, Conn., also wishes to exchange photos of fire stations, fires, etc.

Box 33 Association, Ocean Grove, N. J., is strictly buff, but membership is limited to Ocean Grove firemen. Wm. Schwartz is President, Frank Wilgus of the Times is Vice-President, and Richard Borden is Secretary-Treasurer. Mr. Wilgus features buff activities from time to time in the columns of the Times. A recent article told of the photo collecting hobby of Wm. Schwartz, who has collected thousands of fire photos.

Chester D. Schroeck, 99 Montrose Ave., Buffalo, N. Y., sent two very nice photos of old time apparatus of the Buffalo Fire Department. Mr. Schroeck has been exchanging photos with many buffs in the New England States.

Maryland items include news of the pumper being built for the town of Jessup. This town borders on Fort George Meade. The new Jessup pumper will carry a full line of fire and rescue equipment, and would prove a welcome addition to the fort fire defenses, should a large fire occur on the reservation. Baltimore fans who want to view interesting apparatus should see the new No. 3 Hose Co. of the Baltimore Fire Department. It now belies its title of Hose Co., as the unit now carries a booster tank pump. The wagon is a credit to the ingenuity of Superintendent of Machinery Gallion, and his shop force.

J. E. Chalfant, York, Pa., is interested in early fire organizations. Mr. Chalfant had a hand in designing some of the Martin engines back in 1909. He states that the Greencastle Fire Co., Pa., has in their possession a hand pumper, on the side of which is the name Rescue, and the year 1741. It is believed, so they say, that this was at one time in the Baltimore Fire Department. Mr. Chalfant would appreciate any information on this subject.

The Mystic Sparks Club, Medford, Mass., now has a roster of 28. This group meets in the various fire stations of the city. E. E. Douglass acts as Deputy in the group, and lives at 33 Walnut St., Medford.

51ST.
FIRE FACTS
BY OTIS SMITH
LATTA STEAMER
THANKS TO CLARENCE MEEK, LARCHMONT, N.Y. & LAWRIE CLARK, NEWTON, MASS., FOR THIS INFORMATION.
THE FIRST PRACTICAL STEAM FIRE ENGINES IN THE U.S.A. WERE MADE BY A.B. LATTA OF CINCINNATI. THE FIRST WAS THE "JOE ROSS", TESTED IN 1853. A NEWSPAPER ARTICLE OF 1853 INCLUDES THIS DESCRIPTION OF THE LATTA -- THIS MACHINE RUNS ON THREE WHEELS THE FRONT ONE REVOLVING IN THE CENTER OF THE CAR IN ORDER TO SAVE THE MACHINERY FROM STRAIN IN TRAVEL.
SIMPLE, YET EFFECTIVE, THIS 1-QT. TIN SPEEDS UP FOREST FIRE FIGHTING. THOSE USING PUMP CANS CARRY THE TIN WITH THEM, ENABLING THEM TO REFILL THEIR PUMP CANS FROM EVEN THE MOST SHALLOW WATER SOURCE, THUS DOING AWAY WITH THE TRIPS BACK TO A LARGE SUPPLY SOURCE.
USED BY ENG. No. 2 BALTIMORE COUNTY, MD.

THE ROUND TABLE

For Practical Discussion of Current Fire Department and Fire Management Problems

FIRE DEPARTMENT PARTICIPATION IN STRIKE RIOTS

STRIKES are everywhere.

At the present moment, there is no problem as important to the machinery of national defense as the curtailment of strikes. Strikes continue to make front page news.

Labor problems will always exist. When they come to a head, usually strikes result. When they get out of hand, then there are riots.

Normally, riots are considered as a problem for the police to handle. There have been times when firemen were called out to cool the ardor of the rioters with hose streams.

This gives rise to an important question at the present time. Should fire departments be used to quell strike riots?

The opinions of many fire chiefs on this subject are contained in this round table discussion. Due to the many who expressed opinions, and the limitations of space, this discussion will be concluded in the next issue.

Discussion of the Question

Edward Grenfell, Chief, Portland, Ore.: The Portland Fire Department has never been called upon to assist in quelling a riot.

I do not believe Fire Departments should take part in labor troubles at industrial plants under ordinary circumstances. However, when the national defense program is jeopardized, or when fifth columnists or other subversive organizations are apparent, or when there is danger of fire due to the rioting, then, in my opinion, it is the duty of the fire department, as well as all other citizens, to assist the law enforcement officers in restoring peace and order.

R. P. Collatt, Chief, Burlington, Ia.: It has always been my contention that the Police Department is the only law enforcement body in a city, and the fire department is better off when it takes no part in any law enforcement except in enforcing laws pertaining to fire ordinances and fire prevention.

I believe it is a general policy of fire departments to try and obtain the good will of the public. Participation in law enforcement would have a tendency to break down any good will that had been accomplished, as well as to create an ill feeling between the members of the fire and police departments. Then too, what would happen if the fire department were out helping to quell a riot and a large fire should break out in the city? Another reason I have against fire departments participating in law enforcement, is that most of the paid fire departments are members of the International Association of Fire Fighters, associated with the A. F. of L. This fact alone would create trouble between the members of the Fire Department and organized labor.

During the past winter, Burlington has been the scene of two strikes. During one of the strikes, it was suggested to me that I order out the Fire Department to turn a line of hose into the strikers. I refused to do this, maintaining that I firmly believe the Police Department was the only law enforcement body in the city.

Frank J. Callahan, Chief, Central Falls, R. I.: This department was ordered out by city officials during the textile strike of 1931.

At the time, some three or four hundred frenzied strikers had a small force of some six or seven police officers with their backs to the wall.

When water was turned on them by the Fire Department, they immediately broke up and were held in check until state aid arrived. This water episode had a flare-up, for every time the department was called into the area of said strike, even three years after, stones and fruit were hurled at the boys in the companies.

I am very much opposed to having the Fire Department enter into any strike area. Still, what can we do if ordered out by our superiors?

Earl A. Traeger, Chief, Minneapolis, Minn.: This department has never participated in strike riots at industrial plants. However, several years ago, we were requested to assist the Police Department in quelling a riot at the city hall after tear gas had failed.

It was suggested that we connect pumpers to the four corners surrounding the city hall and turn water on the rioters. This we refused to do for the reason of possible damage to equipment and injury to personnel, which some cities have experienced. It was also my contention that it would further aggravate the riot and possibly lead to loss of life. Our men assisted the police in dispersing the crowd without any injury to the fire department personnel; there were several casualties, however, among the police personnel.

It is my personal opinion that fire departments should not take part in such riots obviously on account of possible casualities to personnel and damage to equipment, and due to the most important fact that Fire Department personnel are not provided with the proper equipment for their personal protection, and are not trained in the proper procedure in handling such situations as are the personnel of the Police Department.

There is also some question in the minds of some as to whether or not a fireman would be entitled to compensation if injured in the performance of such riot duty.

F. W. Donnelly, Chief, Lincoln, Neb.: Our department has never been called to participate in strike riots. We have been called to help police quell or suppress student altercations and disturbances. However, we have never had to resort to the use of water lines or violent methods to suppress these disturbances.

It is my opinion that it is poor practice for the Fire Department to become involved in riots of any kind, unless it is the last resort, because the damage that could result to fire fighting equipment at the hands of an infuriated mob might leave a city without fire fighting faciilties or render equipment so inefficient that it could not be used.

It seems to me that fire equipment and firemen should stand ready to extinguish any fire that might occur from strikes, riots, or disturbances, but let it be known that their presence at the scene is only to control or protect property and lives in the event of fire.

Fred P. Higgins, Chief, Grand Rapids, Mich.: In April, 1911, we were called to a riot in a furniture factory strike by a box alarm from the plant. Lines were laid and the riot broken up. This constitutes a very effective procedure and will work.

However, it is nothing to relish, personally. I believe fire department work should be confined to fire service. In the event of a riot, I don't believe a fire department should look for trouble, but if called by the proper officials, and ordered into action, it should go in fighting.

Thomas H. Shipman, Chief, New London, Conn.: Many years ago this department was called out to use a water line on some negro stevedores who were imported here for strike breaking purposes. As it was so long ago, I

HERE IS THE PROBLEM

Has your department ever participated in strike riots at industrial plants, and what methods did you use to quell such riots?

What is your personal opinion as to fire departments taking part in such riots?

have no details on the outcome of the affair.

My personal opinion is that no fire department should be called upon to take part in strikes or riots unless they have had special training in this type of work. I realize that the fire department is a part of the Department of Public Safety of the city and is subject to call on any occasion where the public and its property is endangered. This, of course, makes it a part of our duties, and although I hope we are never called upon to do this type of work, if the occasion should arise, we would be expected to do our duty regardless of our opinions.

G. A. Goodin, Chief, Muskogee, Okla.: We have never been called to participate in any strikes or riots. I don't believe the fire department should take any part in either of them, as that is part of the law enforcement department's duties. The fire department can make a lot of enemies by taking part.

R. E. Whalen, Chief, Elgin, Ill.: Our department has never been called upon to participate in quelling a riot. I do not believe that the fire department should be called upon to participate in any strike or riot, unless the police force or other law enforcing agencies cannot control the situation, and property is being destroyed. In that case, I believe the fire department's duty is to help preserve life and property.

James Thompson, Jr., Chief, Irvington, N. J.: We have on at least six occasions, responded to riots and other disturbances caused by striking men and strike breakers.

In our city the reason for our response is that one piece of apparatus known as the Emergency Squad has for its personnel both policemen and firemen. The entire crew is schooled in both police and fire work and when a call is received, the apparatus arrives with a full crew of seven men, a police officer and a fire officer.

If the nature of the task at hand is purely police work, all hands work directly under the police officer, and, of course, vice versa.

My personal opinion is that it is well for the firemen to respond to quell a riot if lives are endangered or property is being injured or destroyed.

We find that rioters have considerable respect for firemen when equipped with a good charged line.

E. T. Rose, Chief, Wheeling, W. Va.: We have never participated in strike riots at industrial plants.

If there is fire connected with a riot, of course we would do our best to extinguish it. Otherwise, since we are not a part of the law enforcement agency in the strictest sense of the word, I do not believe the fire department should take any part in industrial strike riots because the firemen are unprotected and at the mercy of the rioters.

Daniel P. Collins, Chief, Elmira, N. Y.: We have never been called to take part in any such affair.

Personally I do not think that a fire department should be called out for strike duty, as they are not equipped for that kind of work. If they were called, what could they do if a strike was in progress where perhaps several hundred men were involved? A Fire Department with fifteen or twenty men would be useless. If a line were to be laid, everybody knows what would happen to the hose and also to the machines.

Let us leave the Fire Department to the work that it is adapted to do, that is the prevention and extinguishment of fires.

J. T. Sullivan, Commissioner, Utica, N. Y.: A number of years ago, our department was called for strike duty at an industrial plant, the idea being that the Fire Department was to turn hose lines on the strikers and so quell any disturbances. The method was a complete failure.

From this experience and from my experience for the past three years in police work, I would say that fire departments have absolutely no right and should not be called upon to participate in industrial disturbances. These industrial disturbances are absolutely a police emergency and should be handled entirely by trained police departments, and the inclusion of a fire department is one of these disturbances is an injustice to the members of the Fire Department who cannot call upon the police to function during a fire emergency.

The fire department's duty in industrial disturbances should be limited to fire duty when fires occur from whatever cause.

O. A. Owens, Chief, Ogden, Utah: The Fire Department of Ogden has not, up to the present time, been called upon to assist in any strike riots, although the firemen are duty bound under city ordinance to assist the police department when called upon to do so.

E. F. Coop, Chief, Pasadena, Cal.: This department has never participated in strikes and riots.

I do not feel that it is within the province of the Fire Department to handle such methods, except in cases of extreme emergency. This is a police department function and should be handled by them. If in an extreme emergency the fire department should be called upon, they should work under the jurisdiction of the police.

Martin J. Hayden, Chief, Bridgeport, Conn.: Years ago, this department was called out to disperse with water an unruly crowd which got out of hand during a car strike. The police force was not large enough at that time to act effectively, so the fire department was called to use water on the crowd.

I believe the police departments today should be large enough to handle any riot and to disperse any crowd, together with the aid of the state police, without calling on the Fire Department.

Howard Travers, Chief, Baltimore, Md.: The Fire Department of Baltimore always assists the Police Department when requested upon occasion of strikes, and cooperates with the police in such methods as deemed advisable under the circumstances.

Fire departments should cooperate with police departments in all governmental functions, and in all emergencies when called upon at any and all times.

H. C. Crumb, Chief, Bay City, Mich.: This department has never taken part in quelling any riots resulting from strikes, but has been ordered to stand by. However, the strikes were settled before we had to participate.

I do not believe that fire departments should take part in quelling riots started by strikes as the men are not trained for this kind of work.

Richard Widmann, Chief, Madison, Wis.: To my knowledge, this department has never had occasion to take part in any strike riots.

Unless fire is involved, I do not believe that fire departments should participate in strike riots. I am of the opinion that such conditions can be taken care of by proper law enforcement officers.

M. J. Shea, Chief, Fitchburg, Mass.: My department took part in a strike about six years ago. I had twenty men sworn in as special police. As we were threatened with riot, we had the whole Police Department with my twenty men on duty until the scare cleared up. The riot did not start when the rioters saw the large force of men on duty at 7:00 a. m. Those men were special police for one year and were ready for any emergency.

I do not approve of the fire department taking part in strikes, but we have no choice. I get my orders from the Mayor and that is final. It is my job to pick the men best suited for the job.

L. M. Funk, Chief, Dallas, Tex.: Our department has never participated in strike riots at industrial plants. My personal opinion is that participation in such matters does not fall in line with the duties or scope of a Fire Department.

S. T. Porter, Chief, Washington, D. C.: This department has never had occasion to participate in the quelling of strike riots in this municipality. As a matter of fact, none has occurred, to my knowledge.

I am personally opposed to members of the fire department participating in the quelling of any such riots, as I believe these situations should be handled solely by law enforcement agencies.

G. R. McAlpine, Chief, Oklahoma City, Okla.: As you know we are not a very large industrial center, and for that reason we have not had much of this kind of trouble. We have experienced some trouble in a minor way and handle it as follows:

We have put in a lot of time training our men on the riot question. We would, if called to participate in a riot, throw all tools that could be used to damage property or as weapons, off the apparatus before leaving the house.

We would take a position at a fire hydrant, using men to guard the apparatus until it is hooked up to the hydrant, and until the water is turned into the engine.

In our case, we have a deck pipe hooked direct to the pressure side of the fire pump. We would put this deck pipe to work and then take lines

(*Continued on page* 25)

THIS DISCUSSION WILL BE CONTINUED

Due to the many Chiefs who contributed their experiences on this subject, the discussion will be concluded in the next issue.

Questions and Answers

NOTE—Readers are invited to send in questions, which will be answered in the order received. Names are omitted from questions unless otherwise specified

Sizes of Nozzles on Different Stretches

To the Editor:

The following question was asked in a recent promotional examination: What size tip would you use in each of the following cases?

(a) A 500-gallon pumper in capacity gear on a 400-foot stretch of two 2½-inch lines siamesed?

(b) A 1,000-gallon pumper at 200 pounds pressure on a single line of 1,000 feet of 2½-inch hose.

(c) A 750-gallon pumper in capacity gear with two single lines of 2½-inch hose 600 feet long.

(d) A 750-gallon pumper at 250 pounds pressure on a single line of 2½-inch hose 1,350 feet long.

L. P. S.

Answer: The rule covering the use of nozzles is as follows:

1. When plain nozzles are to be employed on long stretches, the nozzle should be the second size smaller than one-half the hose diameter, i.e., for a long stretch of 2½-inch hose, use a 1-inch nozzle.

2. When plain nozzles are to be used on medium stretches their diameters may be made the size next smaller than one-half that of the hose: i.e., on a 3-inch line of medium length, the nozzle should be 1⅜ inches diameter.

3. When plain nozzles are to be used on short stretches, their diameters should be made one-half the hose diameter, i.e., for a short stretch of 2½-inch hose, the nozzle diameter should be 1¼-inches.

A "short stretch" is 6 lengths, or thereabouts.

A "medium stretch" is 12 lengths, or thereabouts.

A "long stretch" is 18 lengths, or thereabouts.

As a general rule, nozzles should not exceed in diameter one-half the diameter of the hose on which they are used.

Where siamese layouts are employed, then it is necessary to reduce the layouts to terms of a single line of hose before calculating the size of nozzle to be used.

These rules give us a basis for our figures on nozzle size. After the nozzle size has been figured by these rules, it may be desirable to check with the size larger to see what the result might be, and to make sure that the size originally selected is proper.

Answer (a): Here we have two parallel lines of 2½-inch hose each 400 feet in length. First change them to a single line of 2½-inch hose by dividing by the factor 3.6.

$400 \div 3.6 = 111$ feet of 2½-inch hose.

This is a very short stretch and the nozzle size should be about one-half the hose diameter. The hose diameter is 2½-inches, and one-half of this is 1¼ inches.

$$\text{N. P.} = 120 \div (1.1 + .248 \times 2.22) = 72.7 \text{ pounds.}$$

With this nozzle pressure on a 1¼-inch nozzle, the discharge would be approximately 394 gallons per minute.

This is well within the limits of capacity of the engine.

Now, try a 1⅜-inch nozzle.

With this size nozzle, the nozzle pressure would be 65 pounds and the discharge, 451 gallons per minute.

Here again, the discharge is well within the capacity of the pumper.

A 1⅜-inch nozzle would be better than the 1⅛-inch, for it would utilize more of the power of the pumper.

A size larger than the 1⅜ would be too large, for it would give a greater flow than the engine could supply.

Answer (b): This is a medium length line, and the size of nozzle should be the first size less than one-half the hose diameter.

One-half the hose diameter is 1¼ inches, and the size less would be 1⅛ inches.

$$\text{N. P.} = 200 \div (1.1 + .167 \times 20) = 46 \text{ pounds.}$$

The discharge at this pressure would be 254 gallons per minute, which is well below the capacity of the pumper.

Therefore, we try a size larger, namely, 1¼-inch nozzle.

With 1¼-inch nozzle, the nozzle pressure would be 33 pounds, and the discharge, 265 gallons per minute.

However, the first size nozzle would be more desirable, for it would give a satisfactory pressure. The 1¼-inch nozzle would have a pressure of 33 pounds, which is a little too low for satisfactory work. Therefore the 1⅜-inch nozzle is preferable.

Answer (c): In the case of two single lines 600 feet long, if 1⅜-inch nozzles are employed, the nozzle pressure would be about 39 lbs. and the total discharge 262 gallons per minute. This is considered the most effective for the layout.

Answer (d): Here the stretch is 1,350 feet, which would be termed a medium stretch. Nozzle size should be one size less than half the hose diameter, or 1⅜ inches.

With a 1⅛-inch nozzle, the nozzle pressure is $250 \div (1.1 + .167 \times 27)$. This is equal to 44.5 pounds.

If we should use a size larger than this, namely, 1¼- inches, nozzle pressure would be 33 pounds, which is too low.

Therefore the 1⅜-inch nozzle would be the one to use on this layout.

Time Required to Empty Tank

To the Editor:

There is a tank 22 feet high, 40 feet across, with a 4-inch discharge at the bottom of the tank. When filled with liquid, how long would it take to empty the tank and what would the discharge rate be per minute.

D. R. H.

Answer: The formula for finding the time required to empty a tank through an orifice in the bottom is as follows:

$$t = \frac{2\,A}{a\sqrt{29}} \times \sqrt{H}$$

t is the time in seconds.

A is the cross section area of the tank in square feet.

a is the cross section area of the outlet of the tank in square feet.

H is the initial head of water in feet.

The cross section area of the tank is equal to .7854 d^2, or $.7854 \times 40 \times 40 = 1{,}256.64$ square feet.

The cross section area of the outlet is equal to $.7854 \times ⅓ \times ⅓$, or .087267 square feet.

H = 22 feet.

$$\text{Then } t = \frac{2 \times 1{,}256.64}{.087267 \times \sqrt{2g}} \times \sqrt{22}$$

$$t = \frac{2 \times 1{,}256.64 \times 4.68}{.087267 \times \sqrt{64}}$$

$$\frac{11{,}762.15}{698{,}136} = 16{,}834 \text{ seconds, which equals 4 hours, 40 minutes and 34 seconds.}$$

Operating on Fires, Etc.

To the Editor:

In fighting a fire in any large building where the fire is confined to one end of the building, which is the best way to fight such a fire; by coming at it from both ends or by driving at it from just one end? If one end, which end is best?

In pumping with a rotary gear pump with a capacity of 1,000 gallons into a turret with a 2-inch tip and two 2½-inch lines, will the pump be putting out its capacity?

Our chief says that a high pressure stream blows the fire out instead of the water putting it out. Would this be the proper statement? W. B.

Answer: Normally, if a fire is burning on the floor of a building, it is better to operate from one side; otherwise, you might drive the fire towards the men coming from the other direction.

Of course, when a fire is being operated on from one side, it is very necessary that all exposures, interior and outside, be covered to prevent the fire from reaching floors above or below.

There may be an instance where it would be desirable to operate from all

sides, such as where a fire is burning at the center of a floor and passing up through elevator or stair shaft. In this case, it would be safe to operate from any point toward the fire.

The second problem does not state what the length of the lines are, nor at what pressure the engine is capable of giving 1,000 gallons per minute.

We will assume that it is under old specifications, that is, 1,000 gallons a minute at 120 pounds pressure; we will further assume that the lines are each 100 feet in length.

With an engine pressure of 120 pounds, and two parallel lines of 2½-inch hose, each 100 feet in length, supplying a 2-inch deck gun, the nozzle pressure will be:

N. P. $= 120 \div (1.1 + .418 \times 2) =$ 62 pounds nozzle pressure.

The discharge at 62 pounds pressure will be 936 gallons per minute.

Hence, under the specifications given, the engine will be able to supply the layout, and maintain a pressure at the nozzle of 62 pounds.

The answer to your third question is as follows: A high pressure stream may extinguish a flame, such as from a gas well, by separating the flame from the combustion material; in ordinary fires, extinguishment is accomplished by quenching, that is, cooling the material afire to a point below its re-ignition point.

Vacuum in Pumping

To the Editor:

A 750-gallon pump is drafting water twelve feet through five-inch suction. The vacuum gauge shows fifteen inches. What does "15-inch" gauge mean? Does vacuum increase with depth you are drafting? What is the formula for calculating inches in vacuum that should be shown on vacuum gauge when length of draft and size of suction are known?

C. G. D.

Answer: If the vacuum gauge shows 15 inches, it indicates that the vacuum is equivalent to a negative pressure of 15 inches of mercury. One inch of mercury is equivalent in pressure to 1.134 feet of water.

Fifteen inches of mercury would therefore be equivalent to 15 x 1.134, or 17 feet of water.

In other words, a column of mercury 15 inches high would create a pressure in pounds per square inch equivalent to the pressure created by a column of water 17 feet high.

Thus if the reading on the vacuum gauge were 15 inches, the engine is lifting water a distance of 17 feet.

With regard to a formula for calculating the inches of vacuum which should be shown on the vacuum gauge when the hydrant draft and the size of suction are known, we know of no such formula.

School Organization Authorized

Governor Lehman of New York State recently signed a bill authorizing the Erie County Supervisors to set up a training school for the education of the volunteer firemen in Erie County. For years, the Buffalo Fire Department has had a training school for the paid firemen, but previous to this date, little or nothing has been done toward furthering the education of the many volunteer units in Erie County.

Employees Send Rolling Kitchens to Britain

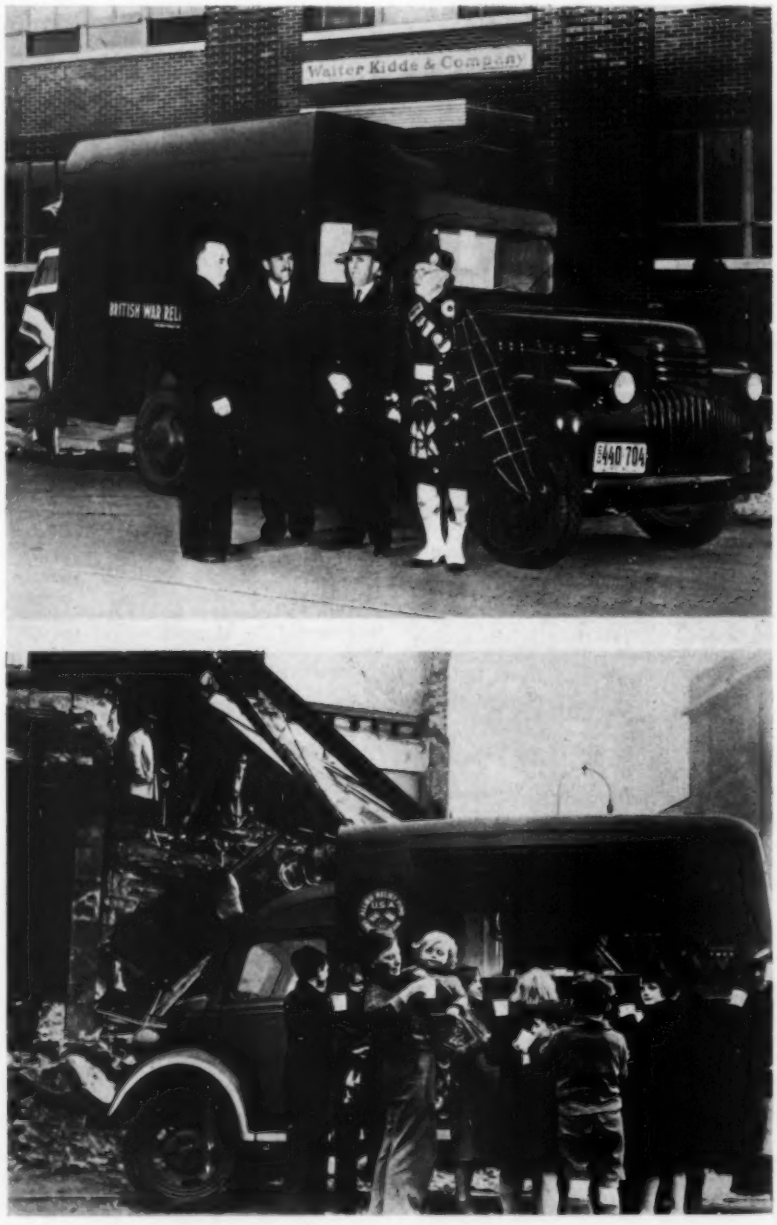
The employees of Walter Kidde and Company, Bloomfield, N. J., sponsored a drive in the plant to purchase a rolling kitchen to send to Britain. The company executives matched the worker's contributions dollar for dollar so that two kitchens could be sent. These two motorized kitchens were presented to the British War Relief Society at a brief ceremony at the Bloomfield plant.

Signal Men Meet in St. Louis

The forty-sixth Annual Meeting of the International Municipal Signal Association will be held at the Hotel Jefferson, St. Louis, Mo., September 29 through October 2.

T. R. Fowler, Chief Electrical Engineer, City Hall, St. Louis, is General Chairman of the Convention Committee. Municipal signal engineers from all over

(*Continued on page* 265)



Rolling Kitchen Presented to British to Feed Homeless London Residents

Top picture, left to right, John McKinnon, head of the employees committee, and V. J. Hill, Vice-President and Plant Manager of Walter Kidde and Company, transfer two rolling kitchens to James Burns and Donald Campbell, officials of the British War Relief Society. Lower picture shows a similar kitchen serving hot meals to homeless residents of London.

Our inquiring reporter overhauls the firemanic news of the day

About Ben Franklin

Larry Donovan, Boston 'clipper', found thus'un and it's worth the 'start-off' position. It's about a boy who really wasn't emulating Ben Franklin, but he got real results. He was flying his kite in East Providence, R. I. when the string fell across high tension wires of the Narragansett Elec. Co.—and near's we can make out, here's what happened: The trio of wires, carrying 11,000 volts burst into flame. Unidentified lad was knocked to the ground. Flames from three wires leaped to nine other wires containing 22,000 volts and all fell. A grass fire started. Firemen and policemen arrived as boy got to feet and ran for home. Power was shut off in industrial section. Oil burners, lights, irons and whatnot ceased to function. Radio Station WJAR went off air. To cap the climax—an automatic emergency transformer failed to function. Selah!

* * *

When's a Siren Not a Siren?

City of Gloucester, N. J. and adjoining borough of Westville, mile away got along well enough except in one instance. They both had identical fire sirens. Yeah, the old alarms tooted the same staccato or obligatto, result, when Gloucester siren blew it was heard so distinctly in Westville that the Vamps there dropped everything and headed for the fire hall. And vice versa, too. Not a nice situation. Indeed no! Nor does Brother Robinson of Des Moines, who sent item, tell us the final outcome. Mebbe they hired a "siren tuner"? Aw well. . . .

* * *

Daffiest Doin' of the Year

"J.W.C.", New England contrib', offers the nuttiest news of the year. It was one of "10 daffiest doings," printed late last year. And the Grand prize for these "daffy didlings" went to Savannah, Ga. firemen who, it was said, got to fire **five weeks late!** Honest! A broken fire alarm, repaired after five weeks out of commission, rang out the last signal that had been pulled before it broke—and four fire companies responded. Now you tell one, Bro' Ripley.

* * *

The Key—the Key—Who's Got the Key!

A window had to be forced at West Wildwood, N. J., Vamp's fire house so equipment could be had to fight a grass fire, when nobody could be found with a key to the structure. Larry Rosenberger, borough marshal, discovered fire, blew siren twice, but none of the respondees had a key. Luckily 'twas only a grass fire!

* * *

How to Milk a Fire!

A man appeared at the door of Mrs. Dixon's home in Lansing, Mich., and handed her two-bits. "What's that for?" she asked. "Well, it's for a quart of milk I stole off your porch. My car caught fire yesterday and I needed something wet in a hurry. Saw that milk, and it did the trick."

* * *

Polly Want a Fireman?

Mrs. Sigbert Awes and some guests were in living room of her home in Minneapolis, Minn. watching some amateur movies. A fire sweeping through a gasoline station was shown on the screen whereat her pet Pol' screamed **"Fire, Fire, Fire!"**

Everybody had a good laugh—until Mrs. Awes turned on the lights and saw smoke coming from the kitchen. The Brothers extinguished the flames with estimated $1,000 loss. Pet Polly, meanwhile, was rescued, still shrieking **"Fire, Fire, Fire!"**

* * *

Mebbe There's a Lesson in This . . .

Eighty-year old Harris Block, pronounced dead by his physician, is alive today because the Fire Department's inhalator squad (Columbus, O.) failed to hear a radio order to return to their station.

Seems that Block suffered a heart attack about midnight. His wife summoned the inhalator squad, but called back ten minutes later to report Block dead. "It's no use" the doctor told firemen at the Block home. But they administered oxygen and Block came to life again!

* * *

A Tres Chic Fire!

Reports hath it that the fire at Le Chic Perfume shop, Tijuana, Mex. had everything. Exploding perfume containers made quite a racket. "It sounded like El Cuarto de Julio" (July 4) said one hombre. **"And the smell—oh, senor, she was wonnerful'."** But the owners said spectacle cost 'em several grand. As for the firemen—"Whoops, who's gonna chase me!"

* * *

Coals to Newcastle

Firemen of "Station 15", Boston, Mass., hit the floor from warm beds early one morn' when alarm banged in. They were all set to "go" when in walked a passerby who had sounded the alarm. "What's yer hurry?" sezze **"The fire's right here at home, on your third floor!"** And sho 'nuff it was. A locker fire which the Brothers promptly snuffed.

* * *

Hot Off the Tape

Altus, Okla. firemen have taken up whittling to keep busy; not an alarm was received for 29 consecutive days. . . . Mrs. Schooley's home, Minatare, Neb., burned to ground one afternoon. She spent night at nearby farmhouse of her son. At dawn next morning, blaze broke out there, badly damaging house. . . . When her car hit fire truck answering an alarm, Mrs. Mirriam Bottach, Merrick, L. I., suffered possible spine fracture. . . . When Fire Patrol 8, Brooklyn, N. Y., collided with delivery truck, 6 firemen injured, four critically. . . . At Elmont, N. Y., Charles Sommers, 57, previously warned against exercise, over-exerted himself in an effort to extinguish fire next to his home, suffered heart attack, died. . . . Posies to Ward Tompkins and Adolph Bevers, charter members Protection Engine Co., Hastings-on-Hudson Vamps who have rounded out 65 years of membership in that organization! . . . Radio patrolman James White stepped on gas when he heard over radio receiving set there was fire at 841 Madison Ave., Elizabeth, N. J. Uh-huh—the fire was in his apartment at that address. . . . Russell Bigelow, 2nd mate on oil tanker tied up at Elizabeth, N. J., was critically burned when he absent-mindly struck match on his gasoline-soaked trousers. . . . When fire destroyed Hollywood Restaurant building, Jamestown, N. Y., two firemen, Carl Sandquist and Francis J. Corrigan were injured, the latter seriously. . . . Fire damage in New York rose $1,036,831 over 1939 despite 4,041 fewer blazes, according to Commissioner John J. McElligott. . . . When fire swept entire block of Portland, Ore. automobile sales district, 225 cars were destroyed—loss about $400,000. . . . Baltimore had a 13-alarm fire, biggest in 18 years. . . . Thinking a real fire just a drill, 62 well-trained orphans marched out of burning Methodist Orphanage, Philadelphia, Pa. . . . Much adoo in New York over reported "fire traps" among city's schools. . . . H. & L. Co. 22, New York City, advised that elderly man was sitting on third story window ledge, responded promptly, frustrated possible suicide. . . . Ridgeland Community frame Church, (reports Rochester, N. Y. contrib') just re-built after a fire, was again burned to ground. . . . Vincent Bradley, Paterson, N. J., is mad because wife identified body of another man as his, and had it cremated. So is the police chief and other officials hot under their collars. . . . Unknown reader sends us clip' from International Fire Fighter about death of J. T. Peterson, member Eng. Co. 18, Birmingham, Ala., F. D. caused by collision between apparatus and Diesel locomotive, when a negro pulled false alarm.

Training School for Firemen

Within a month or so, firemen and policemen of Monroe County, N. Y., will be able to receive training in connection with the extinguishment of bomb fires and the control of poisonous gases. Attendance of city firemen and policemen will be compulsory, while volunteers may attend on their own initiative. Officers and paid firemen will take special courses that will enable them to pass their training on to civilians who may later be organized into auxiliaries.

The paid firemen, policemen and volunteers will then constitute the Emergency Fire Protection force for this area, under the Wood's plan.

Ohio Chiefs to Meet in Lancaster

A large attendance is anticipated at the Ohio Fire Chiefs' Association Convention at Lancaster, Ohio, June 24-26. The usual "fish fry" will be held on June 23.

WHAT'S BURNING

THE following list includes fires of $50,000 loss and over in the United States and Canada, for the month of April, 1941. These figures, compiled from the telegraphic reports, are based on estimates made at the time, and are subject to later investigations and consequent revision. Taken as a whole, however, they are an approximately correct view of the losses incurred. The figures represent losses in thousands of dollars.

Month Ending April 30	Loss in Thousands of Dollar
South Boston, Va.—Business houses and used automobiles	80
Canton, Mass.—Main plant of the Plymouth Rubber Co., destroyed	450
Elizabeth, N. J.—Thousands of bales of hemp and jute destroyed	80
Rye, N. Y.—Summer home, destroyed	60
Abingdon, Va.—Theatre, destroyed and adjoining store damaged	50
St. Victor De Tring, Que.—Hotel, postoffice, garages and dwellings destroyed	70
Toronto, Ont.—Knights of Columbus headquarters, destroyed	50
Eldorado, Ark.—Petroleum storage tanks, destroyed	70
Immokalee, Fla.—Fruit packing houses and lumber, destroyed	50
Whitefield, N. H.—Manufacturing plant, damaged	50
Brockton, Mass.—Four-story hotel and shops	80
Watertown, Minn.—Three-story business building	70
Enumclaw, Wash.—Hotel destroyed and Theatre, damaged	50
Bluefield, W. Va.—Rail-testing car, destroyed	80
Asbury Park, N. J.—Theatre damaged	50
Los Angeles, Cal.—Riverside Breakfast Club	80
Wingham, Ont.—Shipping warehouse, destroyed	50
Bedford, Mass.—Prescott Dairy, damaged	50
Altus, Okla.—Traders Cotton Compress including cotton, destroyed	140
Stavely, Alta.—Grain elevators and storage annexes, destroyed	300
Holland, Mich.—Clothing store, destroyed	50
Sydney, N. S.—Business block, destroyed	50
Inwood, Ia.—Public School building, destroyed	80
Bartlett, Ohio—Eight business buildings, destroyed	50
Property, S. C.—Newberry Lumber Company	50
Frostburg, Md.—Business building, damaged	50
Toronto, Ont.—Paper storage shed, destroyed	50
Detroit, Mich.—Mill and supply building	100
Hartland, Mich.—Store and apartments, destroyed	50
Mansfield, Ohio—Lumber yard, destroyed	225
Pottsville, Pa.—Two stores, damaged	50
Roxboro, N. C.—Five dwellings and box cars, destroyed	50
Los Angeles, Cal.—Furniture plant, damaged	70
Roswell, Ga.—Trouser factory, destroyed	50
Chicago, Ill.—Manufacturing plant, damaged	80
Lakewood, N. J.—200 homes and 26,000 acres of prime woodland	1,800
Sunbury, Pa.—Manufacturing plant, destroyed	50
Cayce, S. C.—Lumber company buildings	70
Ellensburg, Wash.—Dairy farm buildings and outbuildings, destroyed	50
St. Pierre, De. Broughton, Que.—Church, destroyed	70
Brant Rock, Mass.—About 450 summer homes, the Brant Rock Coast Guard Station, a casino and St. Anne's Church, destroyed	1,300
Framingham, Mass.—Business buildings, damaged	70
Hendersonville, N. C.—Highland Lake Inn, destroyed	70
Ottumwa, Ia.—Business buildings, destroyed or damaged	70
Hurleyville, N. Y.—Hotel buildings, destroyed	70
Benton, Ill.—Commodity depot and department store, destroyed	80
St. Barnabe, Que.—Thirteen dwellings, destroyed	50
Masontown, Pa.—Gas compression plant, damaged	70
Philadelphia, Pa.—Candy factory, damaged	50
Lawrenceville, Va.—Department store, damaged	80
Orillia, Ont.—Store and business school, damaged	50
Gary, Ind.—Department store	130
Indianhead, Md.—Five-story ether houseat powder factory, destroyed	125
Candor, N. C.—Lumber company plant, damaged	50
Birmingham, Ala.—Manufacturing plant, destroyed	125
Marissa, Ill.—Freight train, damaged	50
Wichita, Kan.—Hotel supply company and adjoining building, destroyed	125
Worcester, Mass.—Furniture store, damaged	70
Novi, Mich.—Equipment company plant, damaged	50
Los Angeles, Cal.—Warehouse	225

Lumber Fire Loss Put at $250,000

A number of companies in Lancaster County, Pa., had their hands full at a fire which, whipped by a forty-mile gale, leveled a coal, lumber and feed plant in Rohrerstown and endangered surrounding residences and property. Practically all of the fire fighting apparatus in western and central Lancaster County was rushed to the scene to help halt the fire which was considered the worst in the history of the county.

Fire was discovered about six in the morning. Aided by a strong wind, the flames spread rapidly to piles of lumber and to buildings. It soon became necessary to summon aid from surrounding towns and villages. Firemen were greatly hampered in their efforts by the lack of an accessible water supply. It was necessary to relay water from distant sources to the fire, the longest relay being one mile long and requiring five engines. Another relay used three engines and there were several using two engines each. Other engines worked from cisterns and tank wagons.

Water Brought by Locomotive

While firemen were making a determined stand on one edge of the blaze, the Pennsylvania Railroad Company used a steam locomotive that brought a capacity load of water. The locomotive pumps kept a strong stream pouring into the flames, this attack proving to be a substantial help in bringing the blaze under control.

During the fire there was a temporary gasoline shortage in Rohrerstown. The pumpers quickly consumed all available supplies in the town. A call brought a tank truck from one of the distributors carrying a supply of gasoline and oil for the pumpers.

Twenty-one buildings in the lumber yards were razed with a total loss of about $200,000. Damage to poles, transformers, wires and other surrounding property was estimated at a minimum of about $50,000.

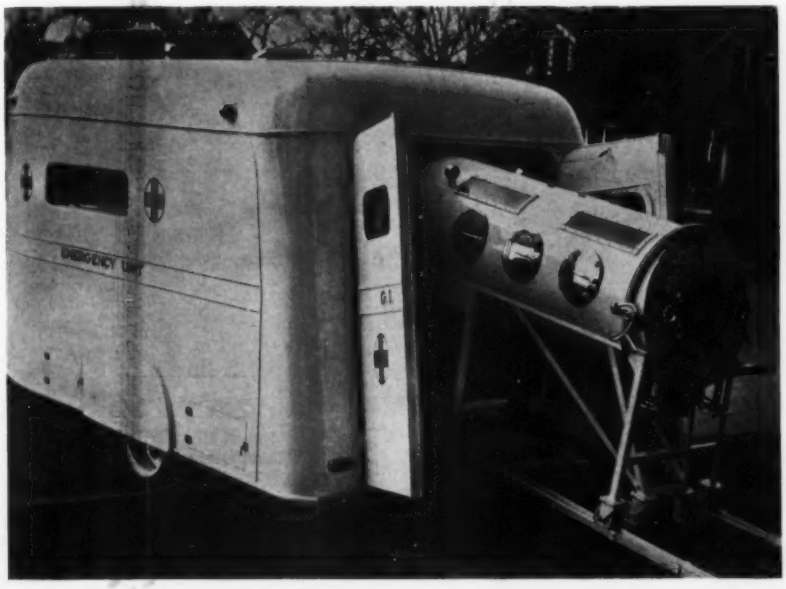
Scenes at the Height of the Rohrerstown Fire

Upper, Volunteers carry away part of the lumber in an effort to stem the progress of the fire. Lower, two firemen direct a stream from behind an improvised barricade composed of an old wooden door which offered some protection from the intense heat.

City Builds Truck for Iron Lung

The city of Grand Island, Neb., has one of the most elaborate and complete iron lung hospitals on wheels in the country because of the ingenuity of its fire chief, Mike Lingeman.

The city, after purchasing an iron lung last fall, shopped around, but was unable to find a truck that would house the lung, operate it while in motion, and at the same time protect the patient from the weather.



Truck Which Carries the Iron Lung

The iron lung on its way out of the truck. Specially constructed rails have been made to carry the lung, while being moved in and out of the truck. This eliminates heavy lifting.

Chief Lingeman told the city council his fire department would build such an outfit, if the city would buy the truck motor and chassis. While expressing skepticism, the council nevertheless voted to buy a truck.

After seventy-five days of work, the fire department members turned out one of the most elaborate trucks to house the lung ever seen in this part of the country.

The truck body is made of body steel. The truck is big enough to house the lung at all times and two cots can also be put up on the inside. A motor operates the lung while the truck is on the road. The truck also carries two inhalators and a D. & H. resuscitator.

Chief Lingeman estimates the truck as equipped would cost around $3,500.

The separate power unit which operates the lung can also be used to operate two 500-watt lights installed above the truck for use in the country. And the inside of the truck is wired so that cords can be plugged in at several places. These all work off the special power unit.

JACK BAILEY

C. Hayward Murphy Dead

Just as a minister was eulogizing the life of C. Hayward Murphy, Fire Commissioner Emeritus of Detroit, Ill., three units of the Detroit Fire Department rolled by in a response to an alarm. This proved a farewell salute to Detroit's No. 1 fire buff, who has been a fire fan since childhood.

Hayward Murphy was born in Detroit fifty-eight years ago, and he obtained an engineering education at Yale University. For twenty years he was one of the Detroits non-salaried fire commissioners working most of the time as President of the Board. He actively participated in the arrangement of New York-Detroit Fire Department baseball series for the benefit of the Firemen's Fund and the Honor Emergency Fund. He was a member of the International Association of Fire Chiefs and the Police and Fire Surgeons Association.

About a year ago, Hayward Murphy retired as Fire Commissioner because of ill health. However, the Detroit City Council appointed him Fire Commissioner Emeritus for life.

New York Chiefs to Meet

The New York State Association of Fire Chiefs will open their annual convention in Utica, N. Y., on May 19. J. N. Sullivan, Commissioner of Public Safety, will act as host to the 250 members who are expected to attend. Assistant Chief Gadsby of the Utica Fire Department will also assist the Commissioner, and the meeting promises to be the "best yet."

As is the rule, the afternoon of Tuesday, May 20, will be given over to the different exhibitors to display their equipment, and so far, there will be a good sized exhibition on the balcony of the Hotel Utica, the convention headquarters.

The program follows:

Monday, May 19

10:00 a.m. Convention called to order by Commissioner of Public Safety, Chief Joseph N. Sullivan, Utica, N. Y.
Opening Prayer.
Address of Welcome by Mayor Vincent R. Corrou.
Response by President George W. M. Brown, Newburgh, N. Y.
Gavel turned over to President Brown.
Memorial service for departed members.
Roll call of departed members.
Song by Quartet.
Memorial Address.
Closing Prayer.
Appointment of Resolution and Nominating Committees.
Presentation of any resolutions.
Adjournment.

Monday Afternoon

2:00 p.m. Meeting called to order by President George W. M. Brown.
Roll call by Secretary.
"Why the Rural Fire Chief Should Be a Member of the New York State Fire Chiefs' Association," by Chief Leon H. Ingersoll, Cincinnatus, N. Y.
Discussion.
"Chemical Fire Hazards in Industry," by T. Alfred Fleming of the National Board of Fire Underwriters.
Discussion.
"Simplified Hydraulics, as Applied to Fire Departments," by Fred Sheppard of FIRE ENGINEERING.
Discussion.
Any business that might be brought before Convention.

Tuesday Morning, May 20

10:00 a.m. Meeting called to order by President G. W. M. Brown.
Call for any resolutions.
10:30 a.m. "National Defense Through Fire Defense," by John Ashmead, General Manager, Phoenix Insurance Company of Hartford, Conn.
Discussion.
11:30 a.m. "Fire Setting by Incendiary Bombs, and Their Extinguishment," by J. E. Tiffany, Explosives Testing Engineer, Explosive Division of the U. S. Bureau of Mines, Washington, D. C.
Discussion.

Tuesday Afternoon, May 20

To be devoted entirely to exhibits and demonstrations.

Wednesday, May 21

10:00 a.m. Meeting called to order by President G. W. M. Brown.
Call for any business or any announcements by local chairman.
10:15 a.m. "Arson," by Chief Paul F. Heinz, Chief of Fire Department, New Haven, Conn.
Discussion.
11:15 a.m. "Fire Department Education Concerning Fire Prevention" with demonstrations, by Capt. Edward F. Curren, Fire Marshal's Office of the Fire Department of New Haven, Conn.
Discussion.
Reading Communications.
Report of Secretary and Treasurer.
Report of Resolution Committee.
Report of any Special Committee.
Designating Place for Next Convention.
Unfinished Business.
Report of Nominating Committee.
Election of Officers.
New Business.
Installing Newly Elected Officers.

On Monday night there will be a Bingo Party and Dance with refreshment for all members and their ladies.

Tuesday evening at 7:30 p. m., there will be a get-to-gether banquet at the Hotel Utica, for members and ladies.

Each member and lady when registering will be assessed $1, which will include a ticket to the banquet, ticket to the Bingo Party and a ticket which will be good for one of the theatres. You will also receive your badge. The Convention Headquarters and all exhibits will be at the Hotel Utica.

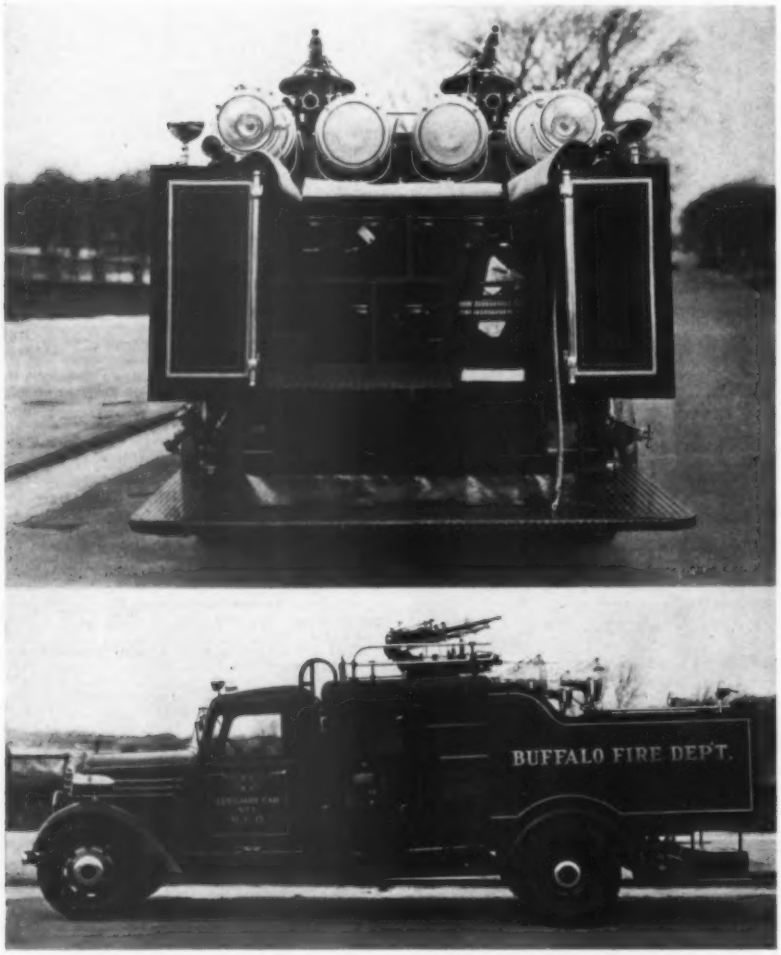
There will be available at all times cars for taking the members and ladies for a ride about the city of Utica, N. Y.

Deputy Chief Moore Named Chief

Deputy Chief Moses M. Moore was promoted to Chief of the Bristol, R. I., Fire Department recently, succeeding Chief F. J. Guevremont. H. R. Gray was named Deputy Chief.

Buffalo Has New Auxiliary Truck

The Buffalo, N. Y., Fire Department recently placed in service a complete auxiliary car, built on a Mack chassis. Mounting of special equipment was done under the direction of Master Mechanic, George Leo of the Buffalo Department.



Rear and Side View of the Auxiliary Truck Showing Placement of Equipment and Side Compartments

The truck is equipped with all the emergency equipment needed at multiple alarm fires and special rescue calls. It carries foamite generators, twenty-ton jacks, acetylene burning equipment, floodlights, salvage covers, pneumatic drills, portable deluge sets, and over one hundred pieces of special fire fighting equipment.

Chief Brennan Hurt in Fall

Chief Edward P. Brennan of the Natick, Mass., Fire Department was seriously injured when a fire-weakened floor gave way under him, dropping him from the second floor to the basement. At the time, Chief Brennan was aiding Chief Leroy Trevett of the Framingham Fire Department in directing fire fighting operations at a fire involving two business buildings.

Firemen executed a thrilling rescue of an eighty-one year old man who was trapped on the top floor of one of the buildings. He was almost unconscious from the effects of smoke inhalation when they reached him with the aerial ladder.

Damage to the two buildings was estimated at $125,000.

Many to Exhibit at Boston

Chief Daniel B. Tierney, Arlington, Mass., Chairman of the Exhibit Committee of the I.A.F.C., has listed the manufacturers who will have exhibit space at the Boston convention of the I.A.F.C. This list is as follows:

Seagrave Corporation, Columbus, Ohio
Hayes Pump & Machine Co., Boston, Mass.
Buffalo Fire Appliance Corp., Buffalo, N. Y.
American-LaFrance-Foamite Corp., Elmira, N. Y.
Mack Motor Truck Co., Long Island City, N. Y.
Carpenter Mfg. Co. Cambridge, Mass.
Maxim Motor Co., Middleboro, Mass.
Farrar Co., Woodville, Mass. (American-Marsh)
Atlas Fire Equipment Co., Inc., New York, N. Y.
Tobin Turn Table, Edw. H. Bugg, Sales Agt., Kingston, Mass.
Eureka Fire Hose Co., New York, N. Y.
Blanchard Associates, Inc., Cambridge, Mass.
Mine Safety Appliance Co., Pittsburgh, Pa.
Midwestern Mfg. Co. Mackinaw, Ill.
D. B. Smith & Co., Utica, N. Y.
Akron Brass Mfg. Co., Webster, Ohio
Boston Coupling, Boston, Mass.
Gorham Fire Equipment Co., Boston, Mass.
Dr. Wallace W. Robinson, American Standard Tourniquet Co., Portland, Me.
American Fire Equipment Co., Boston, Mass.
Harry Lovell, Boston, Mass.
E & J Resuscitator & Inhalator Co., Glendale, Calif.
Superior Fire Equipment Co., New York, N. Y.
Justin A. McCarthy Co., Boston, Mass.
Benjamin M. Ellis, Boston, Mass.
Homelite Corp., Port Chester, N. Y.
J. H. Emerson Co., Cambridge, Mass.
Atwood, Marston & Co., Inc., Boston, Mass.
Fabric Fire Hose Co., Sandy Hook, Conn.
American District Telegraph Co., New York, N. Y.
Elkhart Brass Mfg. Co., Elkart, Ind.
Lux Fire Equipment Co., Boston, Mass. (Kidde)
The C. G. Braxmar Co., Inc., New York, N. Y.
Dayton Fire Equipment Co., Dayton, Ohio
Pyrene Mfg. Co., Newark, N. J.
Co-Two Fire Equipment Co., Newark, N. J.
The Gamewell Company, Newton Upper Falls, Mass.
Rockwood Sprinkler Co., Worcester, Mass.
Duo-Safety Ladder Corp., Oshkosh, Wis.
McIntire Brass Works (Andrew J. Morse) Boston, Mass.
Overhead Door Co., Boston, Mass.
Fire Engineering, New York, N. Y.

Tear Gas and Masks

On page 180 of the April issue of this journal, in a question under the heading "Tear Gas," the use of gas masks was discussed. In connection therewith the following statements appeared: "A well-designed gas mask should be able to filter out most of the tear gas in the atmosphere, although self-contained breathing apparatus is far more satisfactory for this work. In developing the tear gases, they were designed to penetrate the war gas masks, so that they are not as easily removed from the air as other types of gases which are readily absorbed by the materials in the gas masks."

With regard to these statements, the Acme Protection Equipment Company of Pittsburgh, Pa., writes as follows:

"To the Editor: A well designed gas mask is able to filter out all of the tear gas in the atmosphere and render that atmosphere perfectly suitable for human consumption.

"Tear gas is just as easily handled in a gas mask as any other gas and indefinitely easier than numerous other gases. In our FD Mask tear gases are handled perfectly for hours on end, whereas, the article you have recommended, the Self-Contained Breathing Apparatus, at its very best, and in its biggest capacity, would not provide the wearer with continuous or intermittent service of greater than two hours.

"A Self-Contained Breathing Apparatus weighs four or five times as much as a regular fire department gas mask, and firemen, like soldiers, should be loaded with the lightest possible loads. A fireman cannot expend his energy in carrying a heavier than necessary load in such equipment as breathing apparatus and still be expected to deliver great volumes of energy in required directions.

"Don't load a fireman with thirty-two pounds of apparatus when protecting him against tear gas. Improved fire department gas masks weighing less than six pounds will do the job perfectly without usurping his energy."

Friends Honor Chief Lind

This year Chief Olander Lind observed his forty-fifth year of service in the Kansas City, Kan., Fire Department.

He joined the Department in 1886, serving in every capacity until he was appointed Chief in 1925. One of his most outstanding achievements has been the standardizing and modernization of equipment.

In the past, it has usually been the habit of the men to congratulate Chief Lind on his anniversary as he came to his office. This year it appeared as though everyone had forgotten about it. But in the evening he was taken out to the Quivera Lakes Club House, under a false pretense, and on entering the club house dining room he was greeted by a host of his friends.

Chief Lind with the New Chief's Car Which Was Presented to Him on His Anniversary

Manufacturers Reserve Booths at Lancaster

Chief William J. Lutz, Wilmington, Del., Chairman of the Exhibit Committee of the Eastern Association of Fire Chiefs, has listed the manufacturers who have reserved booths for the Lancaster, Pa., convention of the Association. This list, so far, is as follows:

Ansul Chemical Company, Paoli, Pa.
Kerotest Company, Pittsburgh, Pa.
American District Telegraph Company, New York City
Safety First Company, Pittsburgh, Pa.
Federal Electric Company, Laurel Springs, N. J.
Mines Safety Appliance Company, Pittsburgh, Pa.
Indian Pump Company, Utica, N. Y.
Atlas Company, 26 Warren Street, New York City
Fire Engineering, New York City

Milwaukee Firemen Complete Inspection

The Milwaukee, Wis. Fire Department recently completed its second annual home inspection campaign, during which the basements of 96,000 homes were inspected. Firemen gave no orders regarding defects found, but advised the occupants of the hazards and the method of remedying them. It was said that there was a definite reduction in the number of hazards found in 1940 as compared to 1939.

W. J. Duke Appointed Chief at Camp Stewart

Chief W. J. Duke, who resigned as head of the Eustis, Fla. Fire Department, has been appointed Chief of the Department for the Anti-Aircraft Training Center at Camp Stewart, Ga. J. T. Ellis, his Assistant Chief, resigned from the Fitzgerald, Ga. Fire Department after having served in that department for fifteen years.

The fire department at Camp Stewart consists of two stations, five trucks, thirty-eight firemen, an Assistant Chief and a Chief. A recommendation for another station and truck has been made.

N. H. Plans for Emergencies

Detailed plans are being made in New Hampshire to meet the dangers from fire which have increased as a result of sabotage. A special demonstration is to be held in Concord sometime in October. It will consist of fighting an imaginary fire at the State House in Concord with the only source of water supply being the Merrimack river. Companies from many towns will participate.

Steps have already been taken to list all available apparatus in the state for a coordinated front against any possible future emergency. Portable fire pumps are being extensively tested and it has been predicted that this type of pump will be the answer to fire problems of rural and semi-rural communities where good highways are often absent.

A Mistake with Dangerous Possibilities

Not long ago a mechanic for an equipment rental company was called to a construction job to check up on the failure of a gasoline motor to operate. He discovered, according to "Construction Safety" that carbon tetrachloride had been put in the gasoline tank of the motor.

On reporting this, an investigation was made. It was revealed that three five-gallon cans, one containing the carbon tetrachloride, and the other two containing gasoline had been brought to the job. The carbon tetrachloride went into the gasoline tank and the gasoline placed in fire extinguishers.

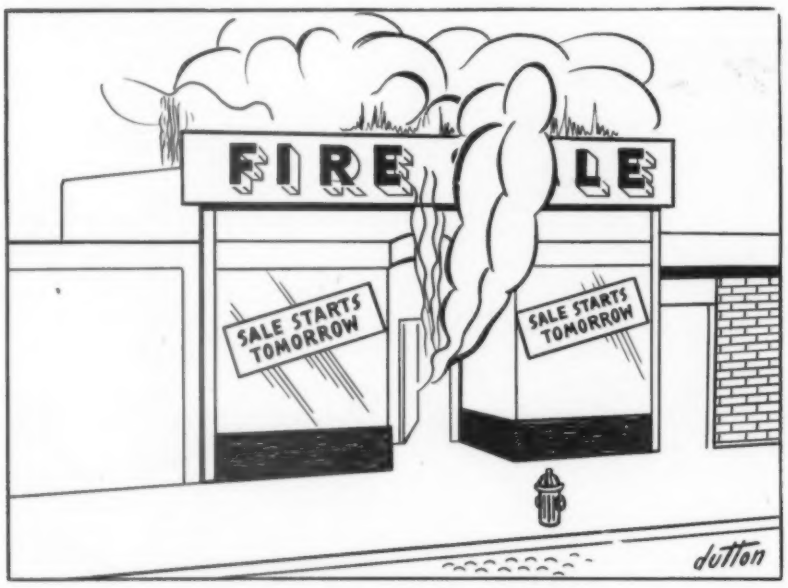
Carthage Department Reorganized

Through the cooperation of the Board of the Municipal Water and Electric Plant, which financed and purchased new equipment to the extent of $20,000, the city of Carthage, Mo., has been able to re-habilitate the fire department.

The apparatus now includes a 750-gallon quadruple combination truck equipped with flood lights, salvage covers, first aid, portable deluge set, and other regular equipment; a 750-gallon triple combination truck completely overhauled and modernized; and a 350-gallon triple combination truck for light work, grass fires and country runs. There is a crew of ten men working in two shifts of five men each, including the Chief and Assistant Chief.

Top Picture Shows One Shift of the Carthage Fire Department. Lower Three Pictures Show the Department's Apparatus

FALSE ALARMS



A Business Man Who Looked Ahead

MILDLY INTERESTED

He had been to the annual Fire Chiefs' Association dinner and his wife wanted to hear all about it when he got home.

"Well," he said, "One rather odd thing occurred. One of our members got up and left the table because some fellow told a risque story he did not approve of."

"How noble of him," exclaimed the wife. "And what was the story, John?"

Love is laughable. In fact, it's just two silly.

SOME IDEA OF MARRIED LIFE

The Chief's wife was down town buying groceries.

"I want some grapes for my sick husband," she said. "Do you know if any poison has been sprayed on these?"

"No, ma'am," answered the grocer, "you'll have to get that at the druggist's."

Many a girl refuses every Tom, Dick and Harry because she wants jack.

WOTTA DOPE

Driver of Engine Company 3 (barely avoiding a broadside crash): "Why on earth didn't you signal?"

Girl (who has crossed into her home driveway): "I always turn here, stupid."

Nowadays an average husband's income is around two in the morning.

RECIPE FOR A WAKE

Take one stewed prune, one pickled peach and one date. Saturate the peach and the prune with brandy or gin; if unable to procure these, beer will do. Place on the seat of a high-powered car and leave on the road for thirty minutes. Then garnish with broken glass, gravel and serve cold on a stretcher. Very attractive in light colored box garnished with flowers.

A SHORT STORY

An Indian bought a new car. A few days later he came back to the salesman with this story:

"Step on starter . . . Throw her in gear, . . . trees go by heap fast, . . . see bridge coming, . . . turn out to let bridge pass. . . . Gimme 'nother car."

He was so short that when he felt ill he didn't know whether he had a headache or corns.

UNSEEMLY DELAY

The merchant insured his goods heavily. That day a fire burned him out completely. The insurance company, unable to prove irregularity, paid.

But the president of the underwriting company permitted himself this letter:

"Dear Sir:

"At 11:30 a.m., you insured your goods with us.

"Your store did not catch fire until nearly four o'clock that afternoon. Why this unseemly delay?"

One guy who simply can't get along without pull is the dentist.

INDISPENSABLE

Boss: "Now what do you want? I thought I fired you two weeks ago."

Ex-Office Boy: "Oh, I just came back to see if you were still in business."

Before marriage a girl has to kiss her man to hold him; after marriage, she has to hold him to kiss him.

HEARTS AND FLOWERS

Lovesick swains who drive with one hand are generally headed for the aisle of a church. Some will be fortunate and live long enough to walk down it, but others will be carried.

"Once more around the block, Spud is having a little trouble getting dressed!"

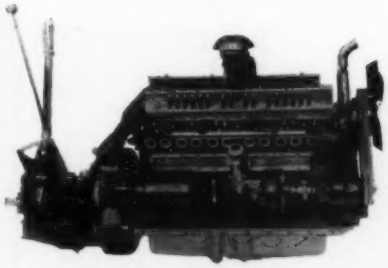
What's beneath the red paint and chrome plating.....? THAT'S WHAT REALLY COUNTS

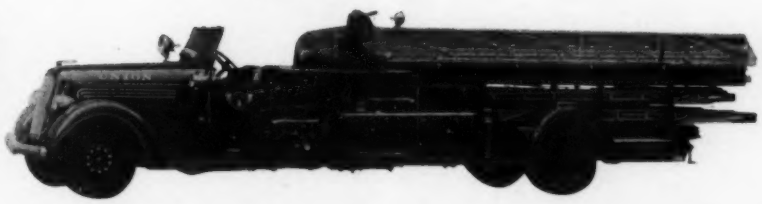
The Seagrave factory at Columbus, Ohio, is devoted exclusively to the making of fire apparatus.

Motors, bodies, pumps, ladders, chassis . . . in fact practically every major part that goes into Seagrave Apparatus is designed, manufactured and assembled in this plant.

THE SEAGRAVE
Corporation
COLUMBUS, OHIO

Yes, it takes more than red paint and bright chrome plating to build dependable fire apparatus . . . It requires years of experience, engineering talent, special machinery, skilled mechanics and modern factory facilities . . . Seagrave has them all and that is the reason why Seagrave is today The Greatest Name in Fire Apparatus.





SEAGRAVE

THE GREATEST NAME IN FIRE APPARATUS

Manufacturers' Announcements

Testall Pump

A "Testall Pump" for determining the maximum safe life of fire extinguishers chemical engines, and fire hose has been

The Testall Pump

announced and is being manufactured by the American-LaFrance-Foamite Corporation, Elmira, N. Y.

Previously, unsafe extinguishers may have been inadvertently continued in service, or good ones discarded prematurely. The Testall pump tells exactly the condition of each extinguisher by testing hydrostatically the shell and hose for strength. It is approved by the Factory Mutual Laboratories with a definite procedure for testing extinguishers, engines, hose, and sprinkler systems.

As the Testall pump flushes interior and exterior of the extinguisher, the testing work can be readily combined with regular maintenance. Flushing and testing water flows automatically without operating the pump. Only a few strokes are required to bring the extinguisher up to the test pressure. The pump is said to be rapid in operation and can be carried by one man.

Applications of the Testall Pump

Upper, fire extinguishers being tested. Lower, hookup of fire hose for testing.

Hand Operated Siren

A new hand operated siren Model G for use in places where no electric power is available, has been announced by the Federal Electric Company, Inc., 8702 South State Street, Chicago, Ill.

The Federal Model G Siren

Two styles are available, Model G-1 for stationary installation on any flat surface, and Model G-2 for portable use.

Portable Pumps

One of the big advantages of the Homelite portable pump, manufactured by Homelite Corporation, 801 Riverdale Avenue, Port Chester, N. Y., is said to lie in the fact that pumpers can be supplied by these pumps when the water supply is not accessible for drafting. The Homelite pump can be connected directly into the suction intake of the pumper, if the pumping engine does not carry a booster tank; or if it is equipped with a booster tank, the Homelite can be hooked up to supply the tank.

Homelite Portable Pump Helps Draft Water for Apparatus

New Feature or Hand Protection

With the elimination of burned hands in mind, Clifford H. Moe has incorporated a new feature in firemen's turnout coats.

This new arrangement consists of a recessed glove compartment, formed between the inner lining and outer portion of the sleeve, which can be opened and closed by means of a zipper fastener. The gloves are attached to a short length of the same material of which the coat is made, while the other end of this material is fastened to the leading edge of the cuff, making the gloves an integral part of the sleeve.

Sleeve Detail

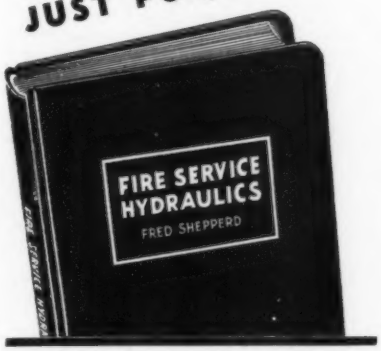
When the gloves are needed, the wearer opens the zipper, and shakes them out, closing the compartment again to prevent the opening from catching on obstructions. The gloves are then hanging downwardly, and ready for insertion of the hand. When stored in their respective compartments, they do not hinder the arm from entering the sleeve and are not overly bulky. Instead they form a protective pad for the forearm.

Kit for Treatment of Burns

A new M. S. A. Foille spray kit for burns has been announced by Mine Safety Appliances Company, Thomas and Meade Streets, Pittsburgh, Pa. This kit includes a supply of Foille, a new therapeutic preparation for the treatment of all types of burns; a high pressure spray gun which screws onto the jars of Foille; suitable dressings; a sterilized bleached muslin sheet; ammonia inhal-

(*Continued on page 261*)

COMPLETELY NEW! JUST PUBLISHED



You Don't Have To Be An Engineer To Understand

FIRE SERVICE HYDRAULICS

By Fred Shepperd, B. Sc., M. E.

(Editor of FIRE ENGINEERING, *and author of such famous and widely used books as "The Fire Chief's Handbook," "Simplified Fire Department Hydraulics" and others.)*

254 pages, 185 illustrations flexible Fabrikoid binding

This new book brings thoroughly up-to-date the subject of hydraulics as it pertains to every phase of fire fighting—in simpler, more understandable, and more complete form than ever. Not only that, it embraces, as well, many important new angles that have never before been covered anywhere. For example, there are new formulas of greater accuracy for finding friction loss and nozzle and engine pressures of small fire hose layouts; methods are shown for making quick hydraulic calculations at fires without the aid of pencil and paper; friction loss in water mains and hydrants is fully covered; calculations are given for automatic sprinkler systems, as well as for Bresnan distributor, fog nozzle and dewatering siphon problems. These are only a few of the new things.

If you now have a copy of Shepperd's "Simplified Fire Department Hydraulics" (originally issued in 1928 but now out of print), you will certainly want "Fire Service Hydraulics". *It is completely different* and nearly twice as large. Every bit of the text is new and so are all of the numerous illustrations. There are several brand new formulas, originated by Mr. Shepperd, and even old ones have been simplified or revised for greater accuracy.

All in all, "Fire Service Hydraulics" is a book every progressive fire fighter from the Chief down needs and should have. It is a "must", particularly for men studying for promotion because it gives the answers to many new questions that are bound to come up in future examinations.

CONTENTS

Chap. 1 Principles of Hydraulics

Chap. 2 Suction and Drafting of Water

Chap. 3 Velocity and Discharge
including Nozzle Reaction, discharge tables for all sizes of Fire Nozzles—small to large.

Chap. 4 Friction Loss Calculations
including calculations for all sizes of hose from ¾" to 3½" and tables of friction losses for all sizes.

Chap. 5 Calculating Engine and Nozzle Pressures
including solutions of problems consisting of single lines, siamesed lines, branched lines; a new method for solving problems involving ¾" to 2" hose; also unlined linen hose from ¾" to 3½" diam.; open butt calculations; lines laid up an elevation or down an incline; standpipe problems; water tower problems; deck gun calculations; pumpers in relay; Bresnan distributor calculations; fog nozzle calculations; quick pressure calculations; foam stream calculations; dewatering siphon calculations.

Chap. 6 Fire Hydrants and Mains
including friction loss calculations; flow calculations; discharge from fire hydrants.

Chap. 7 Fire Streams
including use of nozzles; range of streams; causes of defective streams; proper placement of pipes for good street streams; water hammer, or ram; proper use of shut-off nozzles; electrical conductivity of fire streams.

Chap. 8 Sprinkler System Calculations

Chap. 9 Fire Apparatus Pumps
including descriptions of piston, rotary and centrifugal fire apparatus pumps; calculation of discharge from pumps; pump primers; parallel-series type of pump; pump horsepower calculation; pump discharge at different pressures; ratings of pumps; pump slippage; maximum pressure limitations.

Appendix: Tables Covering the Following:
Static pressures; fire streams supplied by different sized mains; contents of cylinders, cylindrical tanks, cisterns; circumferences and areas of circles; square roots; conversion tables; ranges of fire streams; friction loss in hose; discharges from nozzles.

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Order your copy today. If it doesn't come up to your expectations, return the book in good condition within 5 days and we'll refund your money without a word.

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Please send me ..... copies of FIRE SERVICE HYDRAULICS at $3.00 per copy, postpaid.

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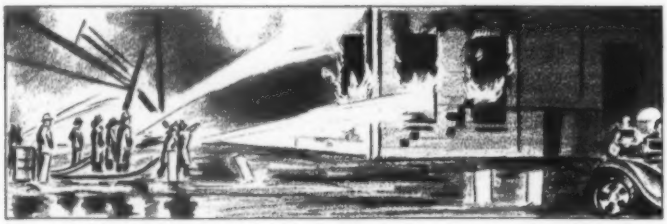

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—The Best Is None Too Good—

Buckeye Shut-off Nozzles throw a smooth, straight stream of water . . . distance depending entirely on pressure. These nozzles are easily handled and quickly adjusted should adjustment be necessary. ***They do not leak.*** They will not open or close under pressure even when partially shut down, yet shut-off works easily under pressure. Hundreds of Fire Departments everywhere use Buckeye Nozzles.

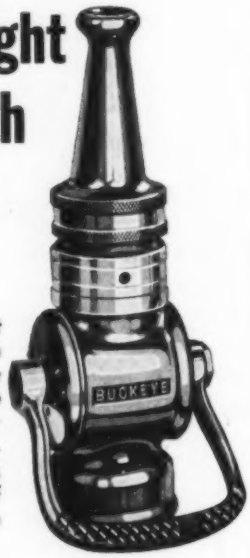

Fig. 904—1½" Leader Line Nozzle

Fig. 905—1" Chemical Nozzle

Buckeye Hydrant Gate Valves are service-tested. They seldom, if ever, need repacking. They have full capacity water-way. They are easy to open—easy to close.

Fig. 934—Single Hydrant Gate Valve

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NOZZLES • GATE VALVES

AN ALL-OUT DEFENSE PROGRAM

against FIRE and SABOTAGE requires: (1) adequate motor apparatus, (2) plenty of good hose, and, (3) efficient Hose Drying Equipment. Increased vigilance and more frequent fire drills mean the use of more and more hose, and it is essential now, more than ever before that hose be dried quickly and ready to put back in service without delay. And that's the function of the

CIRCUL-AIR FIRE HOSE DRYER

This modern, electro-mechanical Dryer does the job quickly, safely, economically and more easily than the old-fashioned towers or racks . . . keeps practically all your hose ready for service all of the time.

Ask Your Fire Hose Salesman, or Write to

THE CIRCUL-AIR CORP.
303 DWIGHT BLDG. JACKSON, MICH.

The Round Table

(*Continued from page* 238)

off the discharge side of pump and advance under the protection of the deck pipe stream. This should always be done under the direction of police or law enforcement officers. Should there be no deck pipe, then the hose should be attached to pressure side of engine and advanced from that point, never laying unprotected lines of hose. This can be done by pulling off hose at the engine and charging the hose line with high pressure before advancing.

The fire chief should plan the procedure by checking the affected area for positions for operations in case of trouble. This plan should be done jointly with police or law enforcement bodies, so that both departments will be familiar with the plan of operation. Operations should always be under the direct order of the law enforcement bodies. This eliminates involving both departments.

I believe that the fire department should not become involved except in extreme emergencies where lives and property are being damaged, and then under the direction of the police or law enforcement bodies.

W. P. Payne, Chief, Spokane, Wash.: A few years ago we had a strike here on the street transportation system.

All the Fire Department did at that time was to lay in four leads of hose and stand by to protect the butane tanks of the bus companies.

We never participated in any way, but remained neutral, as I think that this is the only course to follow.

Having no police power, I believe the fire department has no business in such affairs, except to protect life and property.

C. J. Henry, Chief, Lexington, Ky.: We have not had any experience in industrial strike riots, but did have a riot here several years ago. The County Judge called on the then Chief of the Fire Department to use a company of men to play a hose stream upon the mob in an effort to disburse them. The Chief refused to send any firemen, contending that this line of work was outside the scope of the Fire Department.

I am of the same opinion in regard to all types of riots. I believe that this is the work of the police and of the Sheriff and his deputies. The fire department is organized and maintained to save lives and property in connection with fires, and for no other purpose.

Ralph H. Drum, Chief, Green Bay, Wis.: We have never participated in strike riots.

Foreign agents are doing everything humanly possible to cause strikes in order to slow up production. These same agents are the ones who are advocating Fire Department participation in breaking up riots. In this way, we are pulled out of position in properly covering fires that may occur and which are very likely set by these same rats that should be put up against a wall and shot.

I certainly do not approve of a Fire Department participating in any strike riots or anything else that will draw us out of position from properly doing the job we are here to do.

J. A. Fisher, Chief, Duluth, Minn.: We have never had occasion to be called to a strike or riot.

In June, 1920, under a previous Chief, our department was sent to assist the police department in quieting a negro lynching. Three negroes were lynched. Damage to fire department equipment was large.

I believe that the fire department should not be used in quelling riots. The province of a fire department is the extinguishing of fires. You can readily see that if the fire department were used for quelling riots, that several companies could be put out of service through damage to apparatus and equipment, creating a dangerous hazard to the city from fire.

* * *

Answers to Previous Questions

The following replies are in answer to a previous question on experiences with fires on streets involving gasoline tank trucks:

Richard B. Strasbaugh, Chief, New Freedom, Pa.: Some time ago a gasoline tank truck loaded with 3,000 gallons of gasoline figured in a collision with a pleasure car in southern York County, Pa., at which an incident occurred which resulted in burns to several men who were at least 250 feet away from the truck.

After striking the pleasure car, the tank truck caught fire at the motor which had been jammed back under the cab. The driver was pinned fast and perished in the fire which rapidly spread to the cab. The heat from the burning cab expanded the gasoline in the front compartment of the tank causing the safety vents to open. The fumes in escaping rose, unnoticed by anyone, above the truck in a small cloud several feet high.

Soon the front compartment ignited, and suddenly there was a great flash in the air caused by the collection of the fumes in the air above the truck becoming ignited by the heat from the truck fire. There was no wind blowing and the cloud of fumes had only moved a short distance from the truck in the current of air caused by the heat from the fire.

The peculiar thing is that these men who were 250 feet or more from the fire were not enveloped in the flash of the fumes. They started to run when the flash occurred and unknown to themselves at the time, were severely burned on exposed skin surfaces. Their clothing did not ignite and was not even scorched. However, they said that the only thing they noticed was that they could not breathe, indicating that all the oxygen had been burned from the air. There was no damage caused by the flash to several houses which were enveloped in the flash.

There was no water available and the two pumpers and two chemical trucks had to confine their efforts to saving a store and dwelling about fifty feet to the south of the truck. The truck was allowed to burn itself out, there being no explosion, and no gas escaped on the street.

It is the danger of the cloud of fumes that interested me most. I believe that had water been available, a fog nozzle could have been used with good effect to combat that danger. I believe it would be well to take this into consideration when fighting any gasoline fire. This fire was covered by member companies of the York County Cooperative Fire Fighters Association.

(Continued on page 256)

SAFETY-TOOL *for* ALL EMERGENCIES

Benton Multiple Safety Tool

ENGINEERED TO MEET ALL EMERGENCIES IN A SPLIT FRACTION OF A SECOND'S TIME

SAFETY-TOOL SHEATH and BELT

The Benton Safety Tool is a must for all Municipal and Industrial Fire Departments in the country. Its hundred and one different uses make it invaluable and increases efficiency. It is an axe designed for up-to-date fire fighters' uses and one that will cut any soft wire cable, sheet metal, electric service wire and other wire material, a pick axe, a chisel, a crow bar, an all-service bar, a spanner wrench, a nail puller, a hydrant, sprinkler and gas wrench.

Made in one piece of chrome-plated special alloy hardened steel and equipped with a rubber handle which withstands a shock of 12,000 volts, and provides sure grip for accurate work.

The total weight is only 3¾ lbs., and its correct balance delivers maximum striking power with a minimum of exertion. It is available in a specially designed holster (illustrated) which can be fastened to the belt of the user, or in a steel wall case with breakable glass front. Belt and sheath designed for tool.

Originally intended for use of fire departments, it has proven of great use to other community services, such as Police Departments, Municipal Airports, Water Works and Sewage Treatment Plants, Light and Power Plants and many others.

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CLEVELAND, OHIO

The E & J RESUSCITATOR INHALATOR and ASPIRATOR

The Fire Department of one of the largest cities in the world has used the E & J Resuscitator in over 5,000 cases of respiratory failure.

Two and one-half years of research with the E & J Resuscitator by an outstanding Medical Scientist is considered the foremost study in the treatment of Advanced Asphyxia.

A majority of the leading Medical Schools have adopted this apparatus for the treatment of respiratory failure in their teaching hospitals.

The E & J is standard equipment in the plants of the five largest industrial organizations.

Five years of intensive investigation by the American Medical Association resulted in the acceptance of the E & J Resuscitator by that organization.

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COMM. McELLIGOTT RETIRES FROM NEW YORK DEPARTMENT

Conflict with Mayor Over Penalty Imposed on Reputed Grafter Results in Retirement of Commissioner and Deputy

BECAUSE Deputy Commissioner George L. McKenna of the New York Fire Department did not feel that evidence presented was sufficient to convict one of the Fire Department's inspectors of petty graft, and thereupon found him guilty only of conduct unbecoming a member of the Fire Department, Commissioner McKenna was asked to resign his post by Mayor LaGuardia. Commissioner John J. McElligott upheld his deputy, and after a brief conference with the Mayor, the Commissioner tendered his resignation. Both retirements took effect on May 8.

Seven inspectors of combustibles, composing the entire force of oil-burner inspectors in the Fire Department, were ordered suspended last Feb. 11 after William B. Herlands, Commissioner of Investigation, had accused them of accepting gratuities of $3 to $10.

The case referred to above was the first to be tried, and the departmental findings were submitted to the Mayor. The defendant was acquitted of the charge of accepting gratuities, but was found guilty of conduct unbecoming a member of the Fire Department, a relatively minor offense. Thereupon the Mayor took the matter into his own hands.

Both Men to Receive Pensions

Both Commissioner McElligott and Deputy McKenna will receive pensions.

Mr. McElligott joined the Fire Department as a private November 5, 1905, and earned his way to the top through the various ranks. He was made Chief of the Fire Department March 1, 1932. When Mayor LaGuardia took office Jan. 1, 1934, he asked and obtained legislative consent to combine the offices of Fire Commissioner and Chief of the Department. He named Mr. McElligott to this post.

Mr. McKenna was appointed to the Fire Department on April 17, 1905. He went up through the ranks to become a Deputy Chief on January 26, 1925. He was made Assistant Chief of the Department Dec. 6, 1933, and was appointed First Deputy Commissioner last June 16.

Acting Chief Patrick Walsh was named by the Mayor as Commissioner to succeed McElligott.

The appointment of Chief Walsh as Fire Commissioner climaxes a career in the department which began when he entered the service as a private on Dec. 10, 1901. Working through successive grades he was appointed Deputy Chief on May 16, 1925.

Since Feb. 23, 1940, Chief Walsh had been Acting Chief. His appointment to that post came on the day that Commissioner McElligott originally tendered his resignation as Commissioner, which resignation was not accepted by the Mayor.

Seven other Fire Department officials, including Chief McKenna, were retired by Mr. McElligott on the day he sent in his resignation. The McElligott action brought instant response from Mayor LaGuardia, at whose direction the retirements were cancelled on Feb. 26 by the then Acting Commissioner, the late Elmer Mustard. This cancellation later was upheld in Supreme Court.

John J. McElligott

When Chief McElligott reassumed his commissionership, Chief Walsh remained as Acting Chief, although a legal point involved never was settled. It was contended that Chief McElligott never had resigned as Chief, else the Department would have been required tb hold an examination among eligible candidates. However the civil list had Chief Walsh named as Acting Chief, with mention of Chief McElligott only as Commissioner.

Commissioner McElligott had a very full career in the fire service. As an engineer of steamer, his pumper was the first to arrive at the historic Equitable Building Fire in New York City in 1912. When a Captain, he conceived and organized the first Rescue Company in the New York Fire Department in 1915. In 1926, as Division Chief, he was placed in charge of the fire boat fleet, which command he held until promoted to Assistant Chief in 1931. He became Chief in 1932 and Commissioner in 1934.

Sabotage Danger Stressed

At a two-day meeting held at Kent State University, 500 Ohio fire fighters heard an FBI investigator warn of the dangers to property through sabotage. Suspicious accidents should be reported to the office of the FBI.

Toronto Building Razed by Dust Explosion

War-torn London was duplicated in a section of Toronto, Ont., when a blast at a seed cleaning plant levelled a two-story brick structure, seventy by 200 feet, and fractured windows for many blocks around.

A box was pulled at 1:33 a.m., at about the time that the fire department switchboard was clogged with calls by residents who thought that a bomb had been dropped. The blast was so intense that it was felt for a distance as far as six miles away.

First alarm companies found the place in ruins. The building was all heaped around 20,000 bags of timothy. At first there was a report that five persons were trapped in the ruins. After considerable work, a charred body was discovered in the ruins of a bed.

Chief George Sinclair responded on the second alarm. Eight lines of hose were used, and floodlight from the portable generating sets. It was necessary for the gas company to dig up the street before the gas flow from the broken main could be stopped.

Storekeepers in the vicinity of the blast, spent most of the night barricading broken windows, and an extra detail of police was stationed to prevent looting. The fire was considered out at 4:30 p.m.

JOHN KARL LEE.

Butane-Propane Fire Demonstration

A butane-propane safety and fire demonstration will be the climaxing feature of the second annual convention of the Pacific Coast Section, Liquefied Petroleum Gas Association, to be held in San Francisco, Cal., June 9 to 10. The demonstration will be conducted under the supervision of the Standard Oil Company of California and will include demonstrations of the control and extinguishment of such fires. It will be very informative.

Fire Chief Charles Brennan of the San Francisco Fire Department has appointed men and will furnish the necessary fire equipment. All fire demonstrations will be handled by men from this department.

Medal Urged for Priest

Mayor Fred D. Rowe, Brockton, Mass., in a recent letter to the Carnegie Hero Fund Commission of Pittsburgh, Pa., has recommended the award of a medal for heroism to the Rev. Lawrence P. Morrisroe, forty-eight-year-old curate of Saint Patrick's Church, Brockton, for his bravery in ministering to firemen who were victims of the Strand Theatre fire on March 10. That fire claimed the lives of thirteen Brockton firemen.

Mayor Rowe also mentioned Rev. Morrisroe's heroism in the Pickwick Club disaster at Boston, July 4, 1925, when several of the occupants were killed when the roof caved in. Father Morrisroe crawled beneath the debris at this accident and administered the last rites to the victims, risking his life in the same manner as he did at the Strand Theatre fire.

THOMAS F. MAGNER.

A CENTRIFUGAL PUMP THAT PRIMES ITSELF

Just What Does this Mean?

A fire trailer gets the toughest jobs in the book — dirty water, rough handling, constant emergency duty. That's why LaBour's unique Self-Priming Centrifugal Pump means so much in Fire Trailer Service.

A CENTRIFUGAL PUMP with an open impeller is difficult to clog. The large clearances enable this pump to handle sandy water for years with negligible loss of efficiency due to wear. It needs no relief valve, no air chamber. It maintains pressure while running with the outlet or nozzle valves shut off, and delivers full volume instantly when the valve is opened — all without the slightest injury to pump or engine.

THAT PRIMES ITSELF means no automatic device to fail, no human attention required, no connection to engine manifolds. A LaBour Centrifugal is inherently self-priming just like a piston pump — it removes the air from the suction line and then pumps water *with the same impeller and casing.*

If you are looking for real service from a Fire Trailer, be sure to get a copy of LaBour Bulletin 47.

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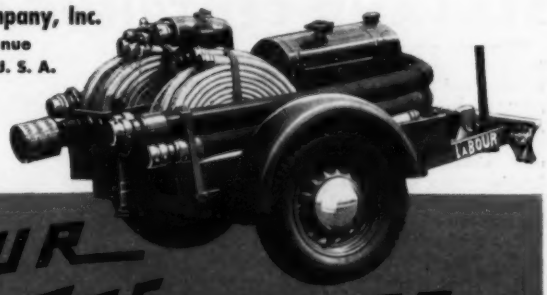

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Fight Fire— *the* EZYWAY

HERE is a new inexpensive fire-fighting tool that will save hours of back-breaking nozzle holding—conserve man power—and permit of higher pressure. In short—provide you with an Ezyway to fight fire.

All you have to do is to attach your own playpipe and nozzle to it and stand on the platform. It converts your present equipment into a deluge unit.

Sturdy clamp holds stream in vertical position.

No back breaking—just stand on the platform.

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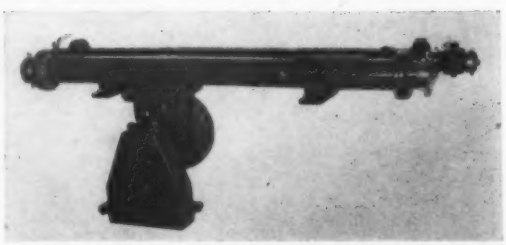
SEALAND CENTRIFUGAL PUMPS

Give your community the extra protection assured by the new Sealand midship-mounted, power take-off centrifugal pump.

The new Sealand can be used either as an auxiliary booster pump or as the sole means for community fire fighting service.

It comes in either 150 gallon or 300 gallon capacities, delivery pressures from 120 lbs. to 400 lbs., and is adapted to use either ¾" or 1" chemical hose, or 1½" or 2½" fire hose.

It is so inexpensive, your budget can afford it. Write today for further details.



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THE SEALAND CORP.

Centrifugal Pumps—Fire Alarm Systems—Modern Fire Apparatus

SAUGATUCK, CONN.

WAR FARE

Alarms and Discussions Clipped and Culled from the War News of the Day, of Interest to the Fire Service.

Roi B. Woolley

Continuing our "clipcount" of the fires of "unknown" and "mysterious" origin, add these to previous lists:

KEARNY, N. J. Two men were killed and one badly injured by explosion of acetylene gas from a welding torch being used on a destroyer. Name of ship not disclosed. Reported as "accident"

THE CITIES SERVICE OIL COMPANY tanker "Cities Service Denver" exploded and burned off the North Carolina coast. Known dead, 19. Many of survivors badly burned. Ship was total loss. Cause ???

ST. JOHN, N. B. Hundreds of soldiers, aided by entire fire department, fought fire which destroyed exhibition buildings used by Dept. of National Defense. Stores of small arms ammunition exploded in blaze which also swept military garages. One soldier injured. Cause unknown.

GENEVA, N. Y. The Geneva Fdry. Co. working on defense contracts was destroyed by "unexplained" fire. Loss $300,000 (plus contracts).

CAMDEN, N. J. Fire, centered in welding department below main deck of new battleship South Dakota, under construction in Camden, the second fire since November, now is reported as "starting from a short circuit."

NEW ORLEANS, LA. A $1,500,000 Federal laboratory nearing completion here was damaged by fire . . . damage was considerable. Cause unknown.

ATLANTA, GA. Two soldiers were killed and a lieutenant injured in a fire which destroyed a brick building at Fort McPherson. Fourteen other enlisted men suffered injuries. Cause "not determined."

Warfare Hot Off the Ticker

Fire swept large Argentina warehouse where uniforms and military material were stored. . . . Crew of fishing boat Mary C, off Bridgeport, Conn., pulled in 100 lb. aerial bomb, in their flounder net. . . . Joe: No, we don't know actual number killed in great Santandar, Sp., fire, but San Sebastian radio reported 83 known dead in fire and hurricane, and hundreds missing, with 30,000 persons made homeless. Damage up to $13,000,000. . . . Second blast in King Powder Co. plant near Cincinnati scared many people, injured none. First killed three men, month ago. . . . Boston has a school to train women for defense. So has New York City, where 56 women just enrolled in the second lecture course on air-raid precautions. . . . Marion, Ohio has a "disaster motorcycle squad", 15 young men who've completed first aid course. . . . When ten-room boarding house at Beachwood, N. J. burned, a marine corps parachute jumper was killed, three others and woman injured. Cigarette originally started a fire in structure; marines put it out—or thought so. Later, re-kindle did the complete job. . . . Near Vineland, N. J., two draftees burned to death and third was badly injured, when their car overturned and took fire. . . . Commissioner John J. McElligott is still petitioning N. Y. city for additional firemen, while long list of candidates are hopeful. . . . A

British sailor was fined $12 in London police court for carrying off a Nazi time bomb which menaced the home of relatives. . . . John F. Mathews, Hempstead, L. I., Chief, aged 31, has entered army. . . . Another Britisher was haled into court because he kept a live bomb under his bed for five months. . . . Over in Brooklyn, N. Y., a three-story brick building, being razed for new Navy Yard addition, was used as guinea pig for demolition and rescue training. . . . London physicians frequently put stethoscopes on bombs to hear their 'insides'. . . . In Peru, a shell of vintage of 1879 where it was made for war with Chile and never used, exploded, killing two. . . . The Nazi army has a new branch of service, it's reported, that throws an artificial fog. We suppose it's little different from those volunteer fire meetings. . . . Roosevelt Hospital, New York City has formed a catastrophe unit of physicians and nurses.

California Firemen Meet

Attendance records of the Northern California Firemen's Association were broken this year with 300 firemen, ladies and guests being present at the regular semi-annual meeting held in Marysville, Cal.

A demonstration was presented by the Ansul Chemical Company of Marinette, Wis., on the proper method to control butane, gasoline and oil fires using Du Gas as the extinguishing agent. Another feature on the program was the first public demonstration of the California Fire Marshal Emergency Unit. This is a mobile trailer unit designed for instant use in case of a major disaster.

The following were elected to serve as officers for the coming year: President, George Arens, Arbuckle; First Vice-President, Howard Schmidt, Orland; Second Vice-President; A. T. Henrich, Ukiah; Third Vice-President, A. R. Gardner, McCloud; and Secretary-Treasurer, B. W. Arundel, Placerville.

A banquet following the election of officers ended the day's activities. Jay W. Stevens of the National Board of Fire Underwriters gave the main address at the banquet.

Correspondence

Trailer Units—Any Size; Any Quantity

To the Editor:

We have received our copy of FIRE ENGINEERING. We have been advertising in your magazine ever since we started in business in Connecticut, and we had had no complaints whatsoever, until we received the April 1941 issue. We have particular reference to your editorial, "With the Editor."

We refer to paragraph five, wherein you state that the output of various manufacturers of trailer units is limited. This is not true insofar as it regards The Sealand Corporation. The Sealand Corporation can produce one or one thousand of these trailer units within a reasonable length of time.

We also refer to the seventh paragraph wherein you give the impression that it is rather difficult for any manufacturer at the present time to produce a trailer unit that will deliver 250 gallons of water at 120 pounds pressure.

Essential Equipment For The Modern Fire Department

The prompt use of the H-H Inhalator, in conjunction with trained skill in artificial respiration, has contributed in great measure to the impressive record of our Fire Departments in saving lives endangered by respiratory failure.

As the most popular and widely-used instrument for the treatment of persons overcome by smoke, gas, electric shock, drowning, and similar hazards, the H-H Inhalator is the foremost aid to respiratory rescue at the fireman's command. It is safe, gentle and thorough in effectiveness—compact, portable and easily operated—and is approved by the Association of Police and Fire Surgeons, the American Gas Association, and officially accepted by the Council on Physical Therapy of the American Medical Association.

Let us arrange an interesting demonstration for the members of YOUR Department!

MINE SAFETY APPLIANCES COMPANY
BRADDOCK, THOMAS AND MEADE STREETS
PITTSBURGH, PA.
District Representatives in Principal Cities

EMERSON RESUSCITATOR, INHALATOR & ASPIRATOR

The Emerson Resuscitator, because of its light weight, its compactness and its foolproof, almost human automatic self-adjusting breathing features, has achieved unprecedented leadership in the field of life saving in this country.

In addition, it aspirates froth or secretions from the patient's throat and administers either oxygen or CO_2 mixtures.

It is designed, developed and manufactured by one of the largest manufacturers specializing in resuscitation equipment in the United States.

Write for literature or an actual demonstration.

J. H. EMERSON CO.

Builders of the Modern Diaphragm Iron Lung

22 Cottage Park Avenue

Cambridge, Mass.

May we advise that The Sealand Corporation has this particular unit in its line of trailer units from 150 gallons to 600 gallons, and there is absolutely no hardship on our part to produce the required units if, as and when, they are needed.

Very truly yours,
R. D. KAUL, President,
The Sealand Corporation,
Saugatuck, Conn.

Editor's Note: Comment in the editorial referred to above was based on an assumed need for from 20,000 to 25,000 trailers by seaboard and near-seaboard cities in this country. Because nothing has been done toward purchasing any of these trailers as yet, and because this country is near entering the war (at which time there will be a frantic demand for "immediate" delivery of apparatus), we envision demands on the fire apparatus industry for production of huge numbers of trailers in the shortest possible time. All builders will have to help in proportion to their respective capacities.

The Round Table

(*Continued from page* 251)

John T. Lynch, Chief, Kansas City, Mo.: Last January 23, 1941, at 3:00 a. m., we had quite a battle with a gasoline tank truck fire. The truck was loaded with 3,000 gallons of gas and was traveling on Sixth Street Trafficway going east when it crashed with a speeding northbound automobile. The truck went out of control, bounded over the curb, dashed down the sidewalk, jammed in between the store front and a trolley pole, bursting the tank and flooding the street with blazing gasoline.

The street was on fire for 500 feet, and in a second the entire front of a hotel building was in flames, destroying several store rooms on the first floor. The fire spread into the hotel office, cutting off escape by the stairway. The hotel had 150 rooms, most of them occupied by poor men. The first four companies swarmed in on the fire with four good streams and drowned out the store rooms, keeping the flames from reaching the upper floors until the second alarm companies arrived.

It was a very cold night and there was quite a bit of snow on the ground. There was little wind, however, otherwise the entire block would have been in flames. The firemen, consequently, had a good chance to wash the gas down the sewer. Two aerial trucks rolled to this corner on the first alarm, but the nearest truck to the fire was out of quarters on a sprinkler still. When the second truck arrived at the fire, the fire escape and every window was crowded with screaming, panic-stricken, half-naked gandies. It was quite a sight and appeared at first to be a dangerous situation. The truck was doubled banked, however, and had plenty of ladders, and when the men swung into action, it was a grand sight to see them snap the ladders up and cover the building. Some of the trapped men were sick, some were cripples, and some were blind. One hundred and thirty-eight of them were taken down ladders to safety. No one was injured, but they took a lot of smoke and the snow didn't feel so good on the bare feet of the rescued who hadn't thought about the cold weather.

I don't believe the Fire Department can do anythng to guard against this hazard. It is like Mark Twain and the weather. Everybody talks about it but nobody seems to do anything about it. The gasoline game in the middle west is a big business. Thousands of trucks go through our city every week on their way to the east from the oil fields and refineries of Kansas. The people must have gas, and it must be delivered. The police could do one thing. They could make the trucks slow down. Some of them go through town faster than a fire truck, and hardly a week goes by that we don't have a gasoline truck crash in this town or in its vicinity.

Our Director of Fire has requested the City Counselor for an ordinance restricting the use of our streets for the transportation of inflammable liquids.

Earl A. Traeger, Chief, Minneapolis, Minn.: Three accidents have occurred in this city where gasoline tank trucks were involved and gasoline spilled, but no fire ensued. The gasoline was washed off street by the apparatus.

Our ordinance requires that all tank trucks be grounded with a grounding chain to eliminate chances of fire starting from static electricity. The only way to reduce to a minimum the hazard of fire in connection with the transportation of gasoline in tank trucks over city streets, is to reduce as far as possible the size of the tank truck.

G. A. Goodin, Chief, Muskogee, Okla.: Gasoline transport trucks should not be allowed to pass through a city unless deliveries are to be made in that city, and they should have static chains long enough to reach the ground at all times.

Every gasoline truck should be inspected at least once every 60 days by a state inspector to see that the seams are holding and not leaking. A limit should be placed on all tanks, and sufficient space should be left in the tank to prevent the gasoline from splashing over the vents.

G. A. Powers, Chief, Newport News, Va.: Fortunate, to say, I have not as yet experienced an accident involving gasoline tank trucks.

Having seen some of the large capacity gasoline trucks of the present day and realizing what might happen in the event of an accident, I have made the necessary arrangements to take care of such an occurrence. I have ordered another seventeen-pound foamite hopper, and one ton of powders, and a truck to carry the powders. This equipment will answer on all boxes in sections where large quantities of gasoline are stored and may be called in the event of an accident involving a tank truck. We also have a booster line fog nozzle and a 1½-inch line fog nozzle. I am ordering four of the 2½-inch line fog nozzles. This equipment, I feel, should meet the requirements.

J. E. Dellinger, Chief, Macon, Ga.: We had a large gasoline truck turn over just outside of the city. The gas ignited and the driver was burned to death. One booster pump was sent but it was too late to do anything ex-

cept to save some of the adjoining property. We have had several tank trucks stall on hills in the city, and the gas in a number of cases leaked from the tank and ran on the street, but didn't ignite. We washed the gas down the sewer in these cases.

We haven't any successful way of fighting this kind of fire.

I believe the best thing would be to route these large tank trucks around the heart of the city.

E. T. Rose, Chief, Wheeling, W. Va.: A few years ago, at one of our bulk stations, they were filling several five-gallon cans with gasoline. The tank truck containing 600 gallons had already been filled. The last five-gallon can to be put on the truck caused a static arc, setting the can afire. The driver attempted to pull the can off the truck, but did not get it clear. The can dropped to the ground and spilled, thereby putting fire all around the truck. A fire-alarm box was sounded. We used two 2½-inch streams and sprayed the fire and gasoline away from the truck and into the sewer. The tank did not explode, due to the fact that it was completely filled and the flames were kept from the top of the tank by the water spray.

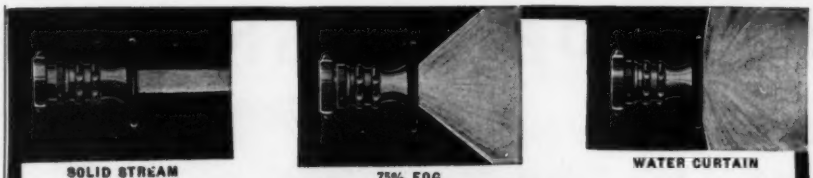
Recently we received a call from near the heart of our city. A driver of a tank truck filling a sidewalk tank, believed that the tank would take the entire contents of the truck and so walked away to talk with the attendants of the station. The tank overflowed, running down a street one way and down an alley another way for a distance of approximately 800 feet before it reached the sewer. The Fire Department turned several streams of water into the gasoline to dilute it, and ordered all buildings in the vicinity vacated until all fumes were dissipated. Luckily, the gasoline did not ignite for if it had, it would have trapped hundreds of people at church services nearby.

Several months ago we received a call to the extreme end of our city where the transmission shaft of a tank truck had broken, thereby puncturing one of the tanks and permitting 600 gallons of gasoline to run out on the street and sidewalk. We also diluted this gasoline with streams of water to cut down the chances of an explosion. Had this tank ignited, it would no doubt have involved another compartment of 600 gallons.

On February 5 of this year, a huge Standard Oil tank truck containing 3,110 gallons of gasoline caught on fire on Route 2 and was completely demolished. From five o'clock until well after seven, the flames from the burning truck leaped across the road, burning electric light and telephone poles and melting several strands of wire.

C. C. Jennings, Chief, Tulsa, Okla.: We recently had a fire involving a gasoline tank truck. The fire had progressed to such a point that the metal tank was too hot to permit smothering the fire with canvas tarps. High pressure lines and fog nozzles were next used, attempting to keep the tank cooled and to snuff the fire. This finally proved successful. We also had in operation several high pressure streams to protect the buildings and surrounding property.

This method was also used to dilute the over-flow gasoline in the street



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The FIRST and still the BEST
ELKHART'S
MYSTERY
NOZZLE

NO MOVING PARTS NO HOLES TO CLOG

A UNIVERSAL NOZZLE NOT MERELY A FOG NOZZLE

The Mystery was the first real combination fog, water curtain and straight stream nozzle, made available to fire fighters.

Now, after three years' widespread acceptance by fire departments and industrial organizations, its superiority has been established.

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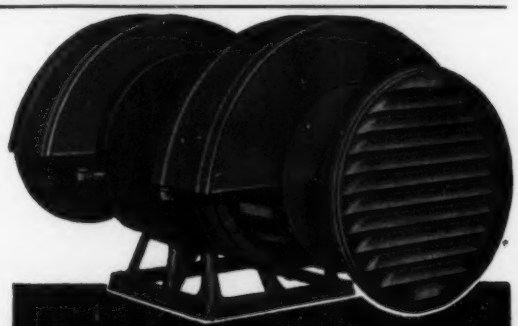

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GENERAL ALARM SIREN
You Can Depend On It *ALWAYS*

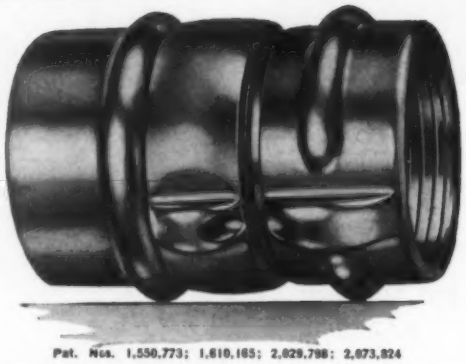
Every community stands in need of constant vigilance against the common enemy—fire, especially in these days of National Defense. That vigilance must be maintained 24 hours a day. The one sure way of obtaining this 24-hour service is through the Sterling Model "M" Siren. Constantly being improved and guaranteed by its manufacturer, its efficiency is proved by the fact that it is extensively used by departments requiring a public alarm system. Write today for further information, specifications and prices.

STERLING SIREN FIRE ALARM CO., Inc.
55 Allen Street Rochester, New York

$250.00 FREE for a NAME

For Our

Drop Forged Rocker Lug Coupling with Swivel and Thread Protectors



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1st $100.00
2nd $50.00
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10 Additional—$5 each

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FOLLOW THESE EASY RULES . . . . .

1 Submit one, or as many names as you like, in describing this protected thread and swivel coupling. Trick names desirable.

2 Draw an outline of coupling and write not more than 50 words describing advantages of this coupling.

3 Print your name, address and Fire Department or fire fighting connection. Send in your suggestions on a sheet of paper, written on one side only.

4 Contest closes June 30, 1941. Only entries postmarked on or before that date will be accepted.

5 Judges will be guided by general suitability of words for advertising and identification purposes. Judges' decision will be final. Entries, contents and ideas therein become the property of Akron Brass. In case of ties, duplicate prizes will be awarded.

6 Any resident of the United States, over 18 years of age, may compete if he is actively engaged in fire fighting and is identified with a municipal fire department, volunteer fire department or other fire fighting organization. Employees of Akron Brass, its advertising counsel, or any individuals engaged in the manufacture, sale or distribution of fire fighting equipment, or their families, are not eligible to compete. Contest subject to all Federal and State Regulations.

7 Prize winners will be notified individually by wire, and formal announcement will be made.

8 Judges for the contest are:
Jay W. Stevens, Exec. Secy. Intl. Assn. of Fire Chiefs, San Francisco, Calif.
Selden R. Allen, Chief of Fire Dept., Brookline, Mass.
George J. Richardson, Secy. Intl. Assn. of Fire Fighters, Washington, D. C.
D. W. Brosnan, Chief of Fire Dept., Albany, Georgia.

Further information and descriptive data will gladly be supplied upon request.

AKRON BRASS MFG. CO., INC. • WOOSTER, OHIO

FIRE CHIEFS FROM EVERY SECTION, SAY "QUAKER FIRE HOSE for ME!"

Well informed Chiefs know its highly developed fighting qualities — against the ravages of fire and wear.

QUAKER FIRE HOSE will take high pressures and very hard usage. Flexible and easy to handle in action—coils in less space for storage.

Longer service because it's specially Mildew-proof, Rot-proof, Freeze-proof.

FIRE CHIEFS — SPECIFY — QUAKER HOSE

FIRE HOSE • FORESTRY HOSE
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MULTIPLE JACKET HOSE made in FOUR distinct and different constructions.

Samples gladly furnished.

QUAKER RUBBER CORPORATION

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State of Nebraska Fire Hose Representative

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and to extinguish the fire as the gasoline ignited. Foam was used in the early stages of the fire, but proved unsuccessful because it could not be "built up." The gas pressure from the tank itself would not permit foam to smother the fire.

I am of the opinion that laws should be passed to direct this type of traffic from the high value districts and also to prevent parking or overnight storage of gasoline tank trucks within city limits.

Thomas F. Cavanaugh, Chief, Waterbury, Conn.: We have experienced accidents involving gasoline tank trucks. We used foamite to extinguish such fires.

The human element always enters into matters of this kind. Everything depends upon the carefulness of the one in charge. A careful man will not have trouble similar to what occurred here. We know that the driver of the truck was smoking although he denied it. The vapors caught fire and sucked the flame into the tank. The gasoline was on fire as it flowed from the tank and ignited a house. Water was sprayed on the side of the tank to cool it off, and to stop the house fire. The highway was a river of flame for a brief period.

In another instance a careless driver allowed the tank to overflow and the gasoline ran down the grade to the roadway where it became ignited in some way. High flames were shooting into the air when the department arrived. Again we used foamite, and again we laid lines and sprinkled the buildings nearby with water. This also was the careless act of the driver, who went inside to toast his shins while the fill was being made.

The wonder of it all is that there aren't more fires from this cause. These heavily loaded trucks pass through the heart of every city. We had a 3,100-gallon truck overturn on the state highway, as the driver fell asleep. Luckily he escaped death. We roped off the street and built a gulley for the leaking gasoline to flow into. It was then diverted into an empty piece of land on the other side. The Fire Marshal refused to allow the truck to be removed until 24 hours had elapsed, fearful of a spark during the jacking up of the machine. No smoking was permitted during this period. Firemen guarded the truck and highway during the entire period, while traffic was re-routed.

W. P. Payne, Chief, Spokane, Wash.: Our tank trucks are well guarded against accidents by having big wide bumpers on them. We do not allow the big trucks and trailers that travel from city to city in our downtown area.

Edward J. Cannon, Chief, Norfolk, Va.: Several years ago we had a tank truck loaded with gasoline which was struck and overturned by an electric street car at an intersection. Naturally some of the gasoline got out through the fill caps, but being in a section where some earth could be quickly gotten, the gasoline was diked to prevent it from getting in storm drains. An engine company stood by until the gasoline was absorbed by the earth and removed. Civilians were prevented from smoking in the area where there was danger of the gasoline being ig-

nited. As this is a flat section of the country, we do not have much trouble in diking any combustible liquids which may be let loose.

If the gasoline had become ignited, I would have diked it in with earth and used fog or foamite. I believe this would be successful, as it has been in a good many cases of storage holders for gasoline.

As we are situated on an extensive waterfront, the greatest part of our gasoline is delivered to the bulk plants by boat (gasoline tankers), some by rail, and none by tank truck. The only gasoline hauled on our streets is that delivered from the bulk plant to the gasoline filling stations. I would say by City Ordinance any highly inflammable or dangerous merchandise could be segregated to streets or highways passing through the outskirts or low value districts of the city.

C. J. Henry, Chief, Lexington, Ky.: We have never had a fire involving a gasoline tank truck.

I would suggest that a city ordinance be passed, as has been done in several of the larger cities, prohibiting the delivery and transportation of gasoline in tank trucks in the business and congested districts during business hours and while the traffic in these districts is heavy. The approximate delivery hours could be between 10:00 p.m. and 5:00 a.m. This would vary with the locality and traffic conditions. I would also suggest that tank trucks be marked front and rear with danger and caution flags for the day time, and suitable danger and caution electric lights for night. I believe that if these precautionary methods were adopted, it would appreciably reduce traffic accidents and hazards.

William J. Mohr, Chief, Santa Monica, Cal.: Up to date we have had no experience with fires involving gasoline tank trucks, but we are organized to take care of an occurrence of this nature. Since Route 101 passes through our city, many trucks and trailers use this route. As a fire might occur by spark, or exhaust, we have all trucks equipped with fog nozzles.

We have many fires from leaky tanks of pleasure autos. In this case we flood the gutter. We use fog nozzles using 200 pounds pressure at the pump and either 1½ or 2½-inch hose. This has proven very satisfactory.

We compel all trucks hauling gasoline to use only certain streets. The police ride the route of travel, often as a safety measure.

The following reply is in answer to a previous question on the use of chains for caps on hydrant outlets:

Thomas H. Poole, Chief, Denver & Rio Grande Western R. R. Shops: Hydrants with cap chains do cause a little delay in getting the caps off the hydrants, as the chains get twisted and the rings stick. This is why I have removed all chains on the fire hydrants around our shop premises. I noticed when our fire hydrants were painted that we had a little trouble in getting the caps off because of the paint on the chain, causing it to twist all the more. I do not allow the firemen to take a wrench to tighten the caps on the hydrants. They are put on so that a man can take them off with his hands. We have had no trouble with

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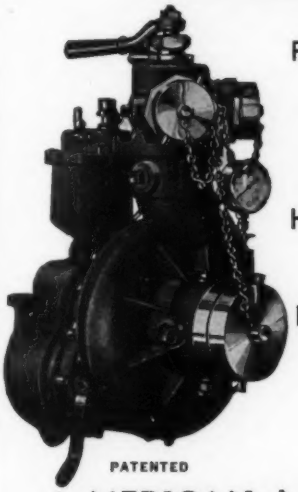
AMERICAN-MARSH PUMPS

Barton-American Midship

FIRE APPARATUS
CENTRIFUGAL PUMPS



FRONT MOUNTED FOR EASE OF OPERATION

AUTOMATIC VACUUM PRIMER

HIGH PRESSURE AT LOW ENGINE SPEED

BOOSTER TANK OPERATION WITH TRUCK IN MOTION

Offered in capacities from 250 to 600 G.P.M.

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AMERICAN-MARSH PUMPS, INC.

Battle Creek, Michigan, U. S. A.

FOR AMERICA'S PREPAREDNESS

NOW is the time to organize and rehabilitate your fire defenses!
Do you have enough Fire Hose on hand so that if fire broke out in 10, 20 or 30 places you could keep it under control?
The people of your community depend on YOU!
CHECK OVER YOUR RESERVE FIRE HOSE NOW.

GENUINE WAX AND PARA GUM TREATED FIRE HOSE

FABRIC FIRE HOSE COMPANY

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The New

ELECTRO-BELL

For motor fire apparatus, it is the only fire bell ever developed to operate electrically from instrument panel or floor board. Immediate response — louder sound. Uses less current than one headlight bulb. Electrical unit can be supplied for your present bell.

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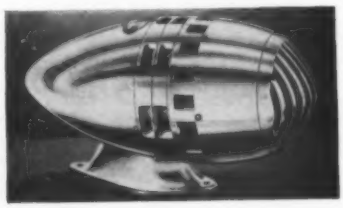
COMMANDER LIGHT



Siren and light combined. A touch of the button and you get a flashing red light and the long range siren roar. Flashing light independent. Full chrome, with or without grille. Long rolling.

H. O. R. CO., INC.
10 BROAD ST.
STAPLETON, STATEN ISLAND, N. Y.

lost caps since the chains were removed.

The following replies are in answer to a previous question on response to day and night alarms.

Napoleon Taupier, Chief, Pawtucket, R. I.: I believe that where it is possible, the night assignment to boxes in outlying business or residential districts should be greater than the day assignment. Most fires occurring at night are apt to get a better start, and when fire apparatus rolls in, there can never be too many men to go to work. Night fires are apt to catch people sleeping, making necessary a great deal of rescue work.

Our company assignments are the same at night as in the day.

Thomas J. McCarrick, Chief, Revere, Mass.: In sections predominantly residential, of the one and two family type, the day assignment provides for one engine less than is assigned during the night. The period for the day assignment runs from 8 a. m. to 6 p. m., and the night from 6 p. m. to 8 a. m. Local regulations provide that reduced assignments may be suspended at any time by the head of the department. In that event the night assignment becomes effective during the day.

The reasons are obvious. Fires are more readily discovered during the day; the life hazard and extension of fire in such districts is less serious; working conditions are much better. In brief, the general condition at night is much more serious than it is during the day.

On the day assignment, we send two to three engines and one truck. At night we send three to four engines and one truck.

Department and Other Reports Received

Beverly Hills, Cal.—Annual report of the Beverly Hills Fire Department for the year 1940; thirty-one pages.

Belmont, Mass.—Eighteenth annual report of the fire department for the year ending December 31, 1940; twelve pages.

Boston, Mass.—Annual report of the fire department and wire division for the year ending December 31, 1939; fifty-eight pages.

Philadelphia, Pa.—Seventy-first annual report of the Fire Insurance Patrol for the year 1940; seventeen pages.

West Virginia University Extension School—The proceedings of the tenth annual fire service extension school held at West Virginia University, Morgantown, W. Va.; eighty pages.

Wellington, New Zealand—Fourteenth annual report of statement of accounts of the Wellington Fire Board for the year ending March 31, 1940; twelve pages.

Sixty Years' Service

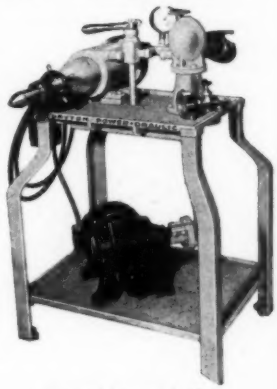
Chief Henry J. Rosenstihl has served in the Union Springs, Ala., Fire Department for the past sixty years and he is still an active member. This, it is believed, is something of a record.

STREAMLINE
your hose expanding equipment with
DAYTON
POWER-DRAULIC
EXPANDER HOSE TESTER
EXPANSION RING EXTRACTOR

Expands couplings from ¾" to 6" size

Tests hose up to 700 lbs.

Removes old expansion rings from old couplings. No manual effort needed.



Motor-driven with ¾ h.p. gear head motor

FOR THE PROPER CARE OF HOSE
MORE PRESSURE - LARGER MOTOR
ROOMIER WORK TABLE
REPLACEMENT SEGMENTS (ALL SIZES)
FOR ANY OLD HYDRAULIC EXPANDER

SEND FOR ILLUSTRATED BULLETIN

DAYTON FIRE EQUIPMENT CO.
1242-48 W. 2ND ST., DAYTON, OHIO

New Improved
ACME
Full-Vision
ALL PURPOSE GAS MASK

ACME gives complete protection against carbon monoxide and all other gases, smokes, fumes and dead air. The ACME all-purpose mask, Type FD, filters out all poison smokes and fumes so effectively that not a visible trace will pass through. Having no pressure points to press forehead or temples, it cannot cause headaches. Weariness is eliminated by the patented ACME Dead Air Check Valve in the fresh air ducts. The lenses are *flat* safety glass which eliminate distortions.

FULL DOWNWARD VISION

The large, fog-free lenses of the ACME mask allow for complete *downward* as well as sideward vision. This safety feature is essential if your men are to go forward and work with safety.

Write for further information. . . . Write for Free Canister Smoke Tester. Test your canisters yourself. If they do not protect against all gases and poison smokes they are not Fire Department (FD) Gas Masks.

ACME PROTECTION EQUIPMENT COMPANY
3604 Liberty Ave., Pittsburgh, Pa.

Manufacturers' Announcements

(*Continued from page 248*)

ants; tubes of Foille for small burns; and tubes of castor oil for the eye. In addition, the kit contains a camel hair brush for applying Foille and a pair of bandage scissors. The entire outfit is contained in a waterproof and dust proof steel case.

The manufacturer states that Foille, the new therapeutic preparation, gives a marked control of pain and resultant shock, shortens recovery time, helps prevent infection, and speeds up the process of tissue reconstruction or the period of healing.

Ezyway Holder

A new idea for one-man control of high pressure streams is the Ezyway offered by the American-LaFrance-Foamite Corporation, Elmira, N. Y.

Hose lines with nozzle pressure over 60 pounds per square inch should not

Ezyway Holder

be used without nozzle-holding appliances. The Ezyway is a hose line and nozzle-holding device designed for one-man control of high pressure hose streams.

It is a sturdy, lightweight platform 14½ inches diameter, with an adjustable swivel elbow with 2½-inch connections. Hose line may be connected to elbow inlet, and playpipe or nozzle to discharge end, a sturdy locking device holds stream in any position between 20 and 60 degrees from the horizontal. Also it can swing through a complete circle by shifting the position of the hose line.

New Extinguisher for Incendiary Bombs

The national emergency has finally produced an extinguishing agent that puts out magnesium fires in industry and in incendiary bombs. This new substance known as Pyrene G-1 Fire Extinguishing Powder, is the result of combined research by the Dow Chemical Company, manufacturer of magnesium alloys and the Pyrene Manufacturing Company.

In addition to incendiary bombs, the use of magnesium alloys has skyrocketed in aircraft and other defense production. Protection against metallic fires, therefore, is a national necessity.

Be Prepared to meet Any Emergency *with* THE FIRE CHIEF'S HANDBOOK

485 Pages Profusely Illustrated

The Greatest Book on Fire Fighting

Written by Fred Shepperd, in collaboration with the Educational Committee of the International Association of Fire Chiefs.

The most complete and authoritative source of practical, helpful data—gives reliable, up-to-the-minute answers to almost every question that might come up in modern fire fighting methods.

Progressive fire chiefs, interested in keeping themselves abreast of current methods of meeting fire emergencies, need this book. It is the book every fire fighter should own and study.

Here are some of the subjects covered:

FIRE DEPARTMENT TOOLS AND EQUIPMENT
MOTOR FIRE APPARATUS PUMPS
FIRE EXTINGUISHERS AND THEIR USE
FIRE STREAMS
FIRE-FIGHTING METHODS
FIRE STATION DESIGN
TRAINING OF FIREMEN
SALVAGE OPERATIONS
BUILDING INSPECTION
VENTILATION AT FIRES
CARE OF FIRE HOSE
CHEMISTRY OF FIRE
HEAT AND ITS ACTION
DRILL TOWERS
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SHUT-OFF NOZZLE

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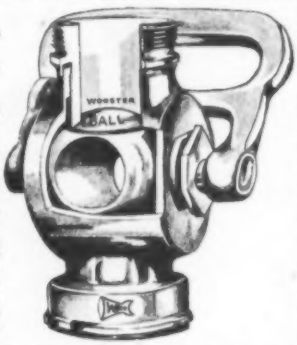

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WB LINE
THE WOOSTER BRASS Co.
WOOSTER, OHIO

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For Firemen Studying for Promotion

QUESTIONS and ANSWERS for LIEUTENANT and CAPTAIN

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Newest Enlarged Edition

A 310-page book, fully illustrated, by Geo. J. Kuss, former Deputy Chief, New York Fire Department, and Fred Shepperd, Editorial Director of FIRE ENGINEERING.

Contains questions asked at promotional examinations in practically every city in the country where civil service examinations are held, with answers.

Includes chapter on Report Writing, How to Answer Examination Questions, Chemistry Examination Questions, Fire Fighting Questions, Overhauling, Ventilation, Fire Prevention, Inspection, Evolutions, Drills, Use of Apparatus, Rescue Work, and in fact all the topics covered by the fire department promotional examinations.

If you are studying for a promotional examination, you need this book; if you are not, it will nevertheless give you a vast amount of valuable information on up-to-date fire fighting methods.

CASE - SHEPPERD - MANN PUB. CORP.
24 West 40th Street, New York City

Usual extinguishing methods, however, do not work. Makeshift substances such as talc, soapstone and sand are unsatisfactory. Water or any substance containing moisture increases the speed of combusion, sometimes with violence.

The new product is a dry inert compound that stops the combustion of magnesium as well as other metals such as sodium, potasium aluminum and zinc. It also contains a material which, when heated, forms a heavy, air-excluding, fire-smothering vapor. The powder is applied to the fire by spreading it with a scoop or shovel. Being non-abrasive, it may be used freely around machinery.

Disaster Searchlight

A new emergency Master-Light Type 1011 has been announced by the Carpenter Manufacturing Company, 179 Sidney Street, Cambridge, Mass. This unit is said to have range of well over a mile, projecting a beam of 250,000 candle-power intensity. One-hand lever control with switch-in-handle provides instant illumination and direction of beam anywhere in 360 degrees and at any height. It is said that only one hole is needed for mounting this disaster searchlight and no screws or bolts are necessary.

Wartime Fire Defense in London

The three New York City firemen, Battalion Chiefs Daniel A. Deasy and J. G. Wedemeyer, and Firemen George T. J. Scott, who traveled to London last year to observe fire fighting operations in that city, have recently had their recommendations recorded in book form. This report is being made available by the United States Conference of Mayors, 730 Jackson Pl., N.W., Washington, D. C., to Fire Chiefs in the cities throughout the country. The book sells for $3.00; it contains 86 pages, illustrated.

The men made a rather complete coverage of all topics included under and resulting from fires caused by aerial bombardment. These topics include: Water Supply of London; Subways; Marine Plan; Organization and Response; Gas Mains, Electric Conduits and Sewage System; Telephone Service; Food Supply; Debris Removal; Fires and Their Cause; Bombs Used on England and Their Destructive Force; Pumps Used in Fire Brigade; Public Health and Evacuation; Decontamination of Gases; Fire Extinguishers; General Education of Public Regarding, Roof Watches, Roof Spotters, Fire Appliances, Air Raid Shelters, and Blackouts; Observation Posts, Regional Control in England; and Balloon Barrage.

Under each topic there is a list or discussion of conditions as they existed in London during aerial bombardments and fire fighting operations. With these observations as a basis, recommendations applicable to our cities are made that would tend to eliminate the shortcomings and unfavorable conditions.

Photographs have been included in the back of the book of fire apparatus and equipment, both land and marine, used in the extinguishment of London Fires; Damage wrought by various types of aerial explosives and other miscellaneous pictures. Drawings have also been incorporated in the report of Telephonic Communications for Typical Battalion Layout; Placement of Auxiliary Companys; and a Triangular Gun Fire Map Used on Outposts.

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The SUPERIOR LIFE SAVING NET is stronger than any other, because of the tested breaking strength of 1,800 lbs. of each individual rope.

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SMOKE MASK

Carry It in Pocket. Slip on in a Jiffy. Positive Protection to Eyes Against Smoke and Saves the Lungs.

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Its battery is rechargeable, without removing it from the lamp and the entire lamp only weighs 6 lbs.

Its light weight and convenient shoulder strap makes it not only a MUST for your department but invaluable because it allows the operator to have both hands free for other duties such as ladder or hose work—

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1,000-GALLON Triple Combination Pumper, first-class mechanical condition, good rubber, ready to go out and pump 1,000 gallons of water at 120 lbs. pressure, thoroughly equipped with suctions, strainers, siren, horn, rod flashers, ladders, booster hose reel and hose, etc. Photographs sent on request. Ward LaFrance Truck Corporation, 276 Jackson Ave., New York City.

Convention Dates

*May 12-16—NATIONAL FIRE PROTECTION ASSOCIATION. 45th Annual Convention, Royal York Hotel, Toronto, Ont. Secretary Hovey T. Freeman, 815 Grosvenor Bldg., Providence, R. I.

May 14-16—NORTH CAROLINA FIRE COLLEGE AND DRILL SCHOOL. Annual Meeting, Charlotte, N. C. Secretary, J. C. Fitzgerald, Asheville, N. C.

May 19-21—NEW YORK STATE FIRE CHIEFS' ASSOCIATION. Annual Meeting, Utica, N. Y. Secretary, Chris W. Noll, Poughkeepsie, N. Y.

May 20-23—IOWA FIRE SCHOOL. 17th Annual Fire School, Iowa State College, Ames, Ia. Director, L. J. Murphy, Ames, Ia.

May 21—IOWA FIRE CHIEFS' ASSOCIATION. Annual Convention, Ames, Ia. Secretary, L. R. Morris, Ames, Ia.

*May 25—NEVADA STATE FIREMAN'S ASSOCIATION. 6th Annual Convention, Lovelock, Nev. Secretary, E. R. Simms, Sparks, Nev.

May 26-28—NEW MEXICO STATE FIREMEN'S ASSOCIATION and NEW MEXICO STATE FIRE SCHOOL. 19th Annual Convention and 12th Annual Fire School, Hot Springs, N. M. Secretary, T. A. Rosenwald, Albuquerque, N. M.

June (tentative)—FLORIDA STATE FIREMEN'S ASSOCIATION. Annual Convention, Jacksonville, Fla. Secretary, F. C. Pfaender, Chattahoochee, Fla.

June—SOUTH CAROLINA STATE FIREMEN'S ASSOCIATION. Annual Meeting, Conway, S. C. Secretary, Paul E. Wilburn, Union, S. C.

June 2-4—OKLAHOMA STATE FIREMEN'S ASSOCIATION. Annual Convention, Ponca City, Okla. Secretary, Charles Slemp, 1701 Northeast 63rd Street, Oklahoma City, Okla.

June 2-6—SOUTH DAKOTA FIREMEN'S ASSOCIATION AND FIRE SCHOOL. Annual Meeting, Sioux Falls, S. D. Secretary, M. C. Sullivan, Parkston, S. D.

June 4-5—NORTH DAKOTA FIREMEN'S ASSOCIATION. Annual Convention. Williston, N. D. Secretary, H. R. Handtmann, Fargo, N. D.

June 9-11—MINNESOTA STATE FIRE DEPARTMENT ASSOCIATION. Annual Meeting, Alexandria, Minn. Secretary, Fred Pfaender, New Ulm, Minn.

June 10-13—ILLINOIS FIRE COLLEGE. 17th Annual Fire College, Illinois, Firemen's Association, University of Illinois, Champaign-Urbana, Ill. Secretary, R. W. Alsip, Champaign, Ill.

June 12-13—INDIANA INDUSTRIAL AND VOLUNTEER FIREMEN'S ASSOCIATON. Annual Convention, Bremen, Ind. Secretary, W. H. Collisson, Winona Lake, Ind.

June 12-14—EASTERN ASSOCIATION OF FIRE CHIEFS. Annual Meeting, Lancaster, Pa. Secretary, Charles E. Clark, Box 217, Wayne, Pa.

*June 15-18—SOUTHEASTERN ASSOCIATION OF FIRE CHIEFS. Annual Meeting, Hotel Roosevelt, Jacksonville, Fla. Secretary, W. W. Stephen, Box 904, Anniston, Ala.

ROSS RELIEF VALVES ON TRAILER PUMPS

Sizes: 1 inch to 1½ inches
Pressure Adjustments:
10 to 250 lbs.
50 to 750 lbs.

Capacity: 0 to 250 G.P.M.
at 120 lbs. 0 to 500 G.P.M.

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Flames roaring from the upper floors and the battle is on. PRESSURE is the one vital factor that you depend on in fighting such fires. If the mains in your city are clogged with incrustation you are *not* getting full pressure. RECOMMEND A NATIONAL CHECK-UP of the water distribution system in your city —everybody will benefit.

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With Detachable Lining

This coat, our No. 331, furnished in different materials, has as a special feature a detachable lining, of pure wool. This feature makes it adaptable to all conditions of weather and assures you of the warm, dry protection that only MIDWESTERN can offer, for only $13.60.

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PORTABLE CUTTING EQUIPMENT

Light . . . easy to carry . . . cuts steel *fast*.

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Guaranteed bright at ¼ mile . . . light . . . one-hand operated . . . long-life battery.

NEW SQUAD WAGON

Big, rugged, high speed—contains every emergency tool—all of above equipment and 275 other necessities *built-in*.

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June 18—THE NORTHWESTERN OHIO VOLUNTEER FIREMEN'S ASSOCIATION. Annual Meeting, Crestline, Ohio. Secretary, J. W. Gardner, Ashland, Ohio.

June 19-21—HUDSON VALLEY VOLUNTEER FIREMEN'S ASSOCIATION. Annual Meeting, Poughkeepsie, N. Y. Secretary, Chris W. Noll, Poughkeepsie, N. Y.

June 21—LEBANON COUNTY FIREMEN'S ASSOCIATION. 19th Annual Convention, Annville, Pa. Secretary, Chief Fire Marshall, A. S. Snuffer, Palmyra, Pa.

*June 23-26—MICHIGAN STATE FIREMEN'S ASSOCIATION. Annual Convention, Bay City, Mich. Secretary, L. M. Kinney, Box A, Kalamazoo, Mich.

June 24-26—OHIO FIRE CHIEFS' ASSOCIATION. Annual Convention, Lancaster, Ohio. Secretary, E. J. Green, Steubenville, Ohio.

June 25—CENTRAL WESTERN (OHIO) FIREMEN'S ASSOCIATION. 11th Annual Convention, Ft. Laramie, Ohio. Secretary, Roger C. O'Donnell, Covington, Ohio.

*June 18-21—IDAHO STATE FIREMEN'S ASSOCIATION. Annual Convention, Wallace, Idaho. Secretary, I. J. Goff, Preston, Idaho.

July 8—STATE ASSOCIATION OF FIRE CHIEFS OF MAINE. Quarterly meeting, Rockland, Me. Secretary, Charles W. Bowker, S. Paris, Me.

*July 15-18—MICHIGAN STATE FIRE COLLEGE. Annual Fire College, University of Michigan, Ann Arbor, Mich. Director Dr. C. A. Fisher, Extension Division, University of Michigan, Ann Arbor, Mich.

July 16-17—ONONDAGA COUNTY VOLUNTEER FIREMEN. Annual Convention, Minoa, N. Y. Assistant Secretary, J. C. Shedd, Minoa, N. Y.

July 16-18—MARITIME FIRE CHIEFS ASSOCIATION. Annual Convention, Edmundston, N. B. Secretary, Charles A. Cunningham, St. John, N. B.

*July 20-25—TEXAS FIREMEN'S TRAINING SCHOOL. Annual Meeting, A. and M. College of Texas, College Station, Tex. Director of Firemen's Training, H. R. Brayton, A. and M. College of Texas, College Station, Tex.

July 21-25—WEST VIRGINIA FIRE SERVICE EXTENSION SCHOOL. 11th Annual State Fire School, West Virginia University, Morgantown, W. Va. Director, G. R. Spindler, 121 Mechanical Hall, Morgantown, W. Va.

July 21-23—WISCONSIN STATE FIRE CHIEFS' ASSOCIATION. Annual Convention, Wausau, Wis. Secretary, A. V. Simon, Ladysmith, Wis.

August—UTAH STATE FIREMEN'S ASSOCIATION. Annual Convention, Murray, Utah. Secretary, J. J Creedon, Bingham Canyon, Utah.

Aug. 4-5—NEW YORK STATE FIRE FIGHTERS' ASSOCIATION. Annual Convention, Syracuse, N. Y. Secretary, Frank A. Emden, 1403 Mather Ave., Utica, N. Y.

Aug. 4-6 1941—INDIANA FIREMEN'S ASSOCIATION, 25th Annual Convention, Kokomo, Ind. Secretary, Burley Marshall, P. O. Box 725, Terre Haute, Ind.

*Aug. 11-13—WISCONSIN PAID FIREMEN'S ASSOCIATION. 34th Annual Convention, Marinette, Wis. Secretary, G. J. Johnson, Racine, Wis.

Aug. 12-15—VIRGINIA STATE FIREMEN'S ASSOCIATION. Annual Convention, Staunton, Va. Secretary, R. B. Barker, Newport News, Va.

*Aug. 13-16—COLORADO STATE FIREMEN'S ASSOCIATION. Annual Meeting, Fire School, and Tournament, Steamboat Springs, Col. Secretary, Clinton Turnbull, 215 Boston Bldg., Denver, Col.

Aug. 16-17—VERMONT STATE FIREMEN'S ASSOCIATION. Annual meeting, place not fixed. Secretary, W. H. Adams, Vergennes, Vt.

Aug. 17-20—NEW YORK STATE PERMANENT FIREMEN'S ASSOCIATION. Annual Convention, Auburn, N. Y. Secretary, Arthur Bleau, Weslyan Street, Amsterdam, N. Y.

*Aug. 18—NEW ENGLAND ASSOCIATION OF FIRE CHIEFS—Annual meeting, Hotel Statler, Boston, Mass. Secretary, John W. O'Hearn, 99 Main Street, Watertown, Mass.

Aug. 19-22 — FIREMEN'S ASSOCIATION STATE OF NEW YORK. Annual Convention, Geneva, N. Y. Secretary, Fred A. Davis, Port Edward, N. Y.

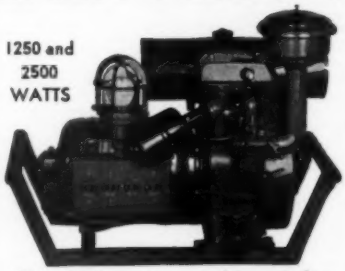
*Aug. 19-21—KENTUCKY FIREMEN'S ASSOCIATION. 22nd Annual Convention, Covington, Ky. Secretary, V. A. Beam, 2221 W. Broadway, Louisville, Ky.

Aug. 19-22—INTERNATIONAL ASSOCIATION OF FIRE CHIEFS. 69th Annual Convention, Hotel Statler, Boston, Mass. Secretary, D. B. Tierney, Arlington, Mass.

*Aug. 22-23—CONNECTICUT STATE FIRE-

"U.S." PORTABLE LIGHT PLANTS

1250 and 2500 WATTS



This 1250 watt, portable unit has been designed expressly for fire department use. It is small, light, compact and equipped with carriers for easy portability out on the job. Air-cooled 4-cycle engine 2⅝" bore x 2⅝" stroke. 2.4 H.P. 2 gallon fuel tank. Quick starting. Also 2500 watt size.

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MANHATTAN FIRE HOSE

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★ Every Length Tested Under Pressure

★ Flat-Folding . . . . Easy-to-Handle

Made by the makers of Manhattan Radio - Active Treated Fire Hose — the mildew - proof, rot - proof, freeze - proof fire hose.

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Fire Hydrants

Are given preference by so many fire protection and water works men because they know that more than half a century of experience goes into their manufacture and they embody valuable and exclusive features.

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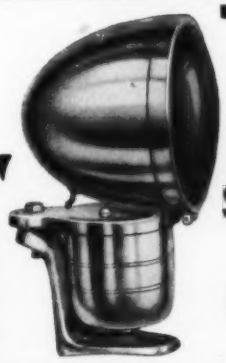

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Chief, let a FREE TEST show you that an 06 MASTER-LIGHT means *faster, safer, quieter* runs! Powerful sweeping red beam warns traffic 1,000 feet ahead — clears way in any weather. Fixed lamp head cannot stick in snow or sleet. Effective even in daylight!

CLEARS YOUR SIDE OF STREET

Write now for new free Fire Chief Folder illustrating MASTER-LIGHTS. We allow 30-Day FREE TRIAL — no obligation! Send for free Folder NOW!

CARPENTER MFG. CO.
200 Sidney St., Cambridge, Mass.

MEN'S ASSOCIATION. 58th Annual Convention, West Haven, Conn. Secretary, D. W. Harford, 10 Chestnut Street, South Norwalk, Conn.

*Aug. 25-29 — PENNSYLVANIA FIREMEN'S TRAINING CONFERENCE. 3rd Annual Conference, Pennsylvania State College, State College, Pa. Secretary, Charles E. Clark, Box 217, Wayne, Pa.

*Aug. 26-29—DOMINION ASSOCIATION OF FIRE CHIEFS. Annual Convention. Peterborough, Ont. Secretary, Chief James Armstrong, Box 56, Kinston, Ont.

*Aug. 28-30—WEST VIRGINIA FIREMEN'S ASSOCIATION. Annual Convention, Weston, W. Va. Secretary, H. G. Fridinger, Martinsburg, W. Va.

Sept. — NEW HAMPSHIRE STATE FIREMEN'S ASSOCIATION. Annual Meeting, place not fixed. Secretary, A. G. Robinson, Manchester, N. H.

Sept., 1941—IOWA FIREMEN'S ASSOCIATION. Annual Meeting, Chariton, Ia. Secretary-Treasurer, Paul A. Saener, Independence, Ia.

Sept. 2-5—MARYLAND FIRE COLLEGE. 12th Annual Fire College, University of Maryland, College Park, Md. Director, J. W. Just, University of Maryland, College Park, Md.

Sept. 9—STATE ASSOCIATION OF FIRE CHIEFS OF MAINE. Annual Meeting, Norway. Secretary, Charles W. Bowker, S. Paris, Me.

Sept. 10-11—DELAWARE VOLUNTEER FIREMEN'S ASSOCIATION. Annual Convention, Middletown, Del. Secretary, W. W. Pettyjohn, Dover, Del.

Sept. 12-13—NEW JERSEY STATE FIREMEN'S ASSOCIATION. Annual Meeting, Atlantic City, N. J. Secretary, Evan F. Benners, R. 602, 24 Branford Place, Newark, N. J.

*Sept. 13-14—OHIO STATE VOLUNTEER FIREMEN'S ASSOCIATION — Annual Convention, Kent, Ohio. Secretary, Sidney Wellock, 2976 S. Main Street, Akron, Ohio.

Sept. 22-25 — CALIFORNIA STATE FIREMEN'S ASSOCIATION. 19th Annual Convention, Huntington Hotel, Pasadena, Cal. Secretary, H. E. Strasser, 2046 Oregon Ave., Long Beach, Cal.

Sept. 29-Oct. 2—INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION. 46th Annual Meeting, Hotel Jefferson, St. Louis, Mo. Secretary, Irving Shulsinger, New York City.

Oct., 1941 — ARKANSAS STATE FIREMEN'S ASSOCIATION. Annual Meeting, Magnolia, Ark. Secretary-Treasurer, H. D. Compton, Central Fire Station, Little Rock, Ark.

Oct. 2, 1941—WALWORTH COUNTY FIRE OFFICER'S ASSOCIATION. 11th Annual Meeting. Secretary-Treasurer, C. A. Foster, Lake Geneva, Wis.

Oct. 7-9, 1941—FIREMEN'S ASSOCIATION OF THE STATE OF PENNSYLVANIA. Annual Convention, Greenburg, Pa. Secretary Charles E. Clark, Box 217, Wayne, Pa.

Oct. 14-16, 1941—ILLINOIS FIREMEN'S ASSOCIATION, Inc. Annual Convention, Bloomington, Ill. Secretary, Roy W. Alsip, Champaign, Ill.

Oct. 21-23, 1941—NEBRASKA STATE VOLUNTEER FIREMEN'S ASSOCIATION. Annual Convention, Norfolk, Neb. Secretary-Treasurer, Louis A. Novak, Box 788, Norfolk, Neb.

Signal Men Meet

(*Continued from page* 240)

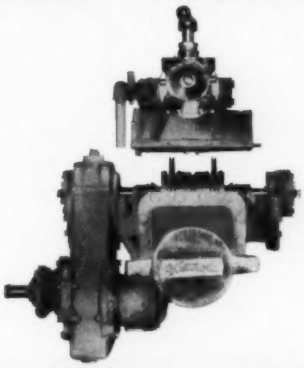
the country will attend. Technical papers and discussions will cover the installation, operation and maintenance of municipal fire alarm systems, traffic signals, police telegraph, radio communication and related systems and equipment.

In the Exhibit Hall, adjoining the meeting room where all sessions are held, leading manufacturers will exhibit equipment and products used in the municipal signaling field. Entertainment features will be provided for all, with special entertainment planned for the ladies.

A Worthy Service Record

Chief William F. Mader, is the oldest paid fire chief in point of service in Ohio, and perhaps one of the very few in point of service in the country. On July 1, he will have served as Chief of the Bucyrus, Ohio, Fire Department for fifty-two years.

WATEROUS FIRE PUMPS



THE SUPERIOR FIRE PUMP

Waterous Fire Pumps are better because of the quality in the design as well as the materials used. For example: The main casing is made in two parts and is split horizontally. The impeller shaft is supported at each end by ball bearings which run in oil and which are protected from water by stuffing boxes, flinger rings and oil seals.

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Waterous Dependable

WATEROUS COMPANY
ST. PAUL

A BADGE
to be proud of

For the past 60 years we have supplied the fire fighters of America with the finest badges they have ever worn.

We maintain a group of skilled workmen for the express purpose of making these badges. We supply them with only the finest of metal. The badge they make for you is without doubt the best you can buy anywhere.

Recommend Braxmar to all your fellow fire fighters and wear one yourself.

C. G. Braxmar Co., 242 W. 55th St., N. Y.

BRAXMAR BADGES

Standard for over 60 years

SPECIFY HALE

for defense . . . . . .

The complete line of Hale Fire Pumps, Rotary and Centrifugal, Trailer Pumpers and Pumping Units, accurately meets the modern requirements of National Defense.

Write today for the Catalog and Folders on the complete line of Hale Pumps.

HALE FIRE PUMP COMPANY
CONSHOHOCKEN, PA.

THE HARRINGTON FA-20

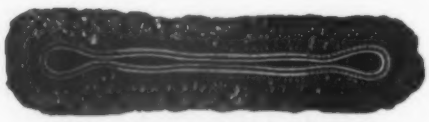
FIRE ALARM BOXES

are high quality boxes in every detail. Made of cast aluminum inside as well as out they make for tight, fast and easy installations and long, corrosion-free service.

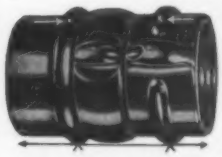
Equipped with quick action doors, furnished to meet every specific requirement. They are quick acting and non-interfering of the shunt and successive type.

Send today for Bulletin 20 and prices

HARRINGTON SIGNAL CO., Moline, Ill.



This is the new LIGHT WEIGHT BI-LATERAL FIRE HOSE



This hose will stand 900 pounds pressure and weighs but 45 pounds to the section uncoupled.

Here's the new DROP-FORGED rocker lug coupling (not cast bronze), with the swivel-protecting feature.

This coupling will stand several expansions and can be used over and over again, saving your city at least 20c to 30c per foot on future hose purchases.

When in the market, let us show you that we can give you the best service obtainable for the least money.

BI-LATERAL FIRE HOSE COMPANY
20 N. Wacker Drive **Chicago, Illinois**

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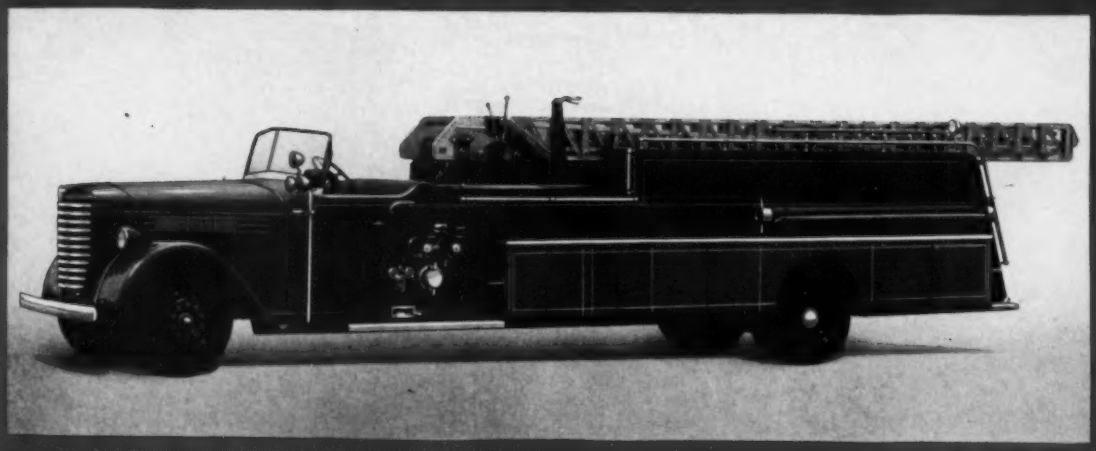


THE PIRSCH ENCLOSED QUINTUPLE

THIS COMPACT STREAMLINED UNIT REPRESENTS THE LAST WORD IN MODERN DESIGN and CONSTRUCTION

The Major Equipment Consists of:

65' Pirsch Patent Aluminum Alloy Aerial Ladder; 100% Powered

750 Gallon Series-parallel Centrifugal Pump

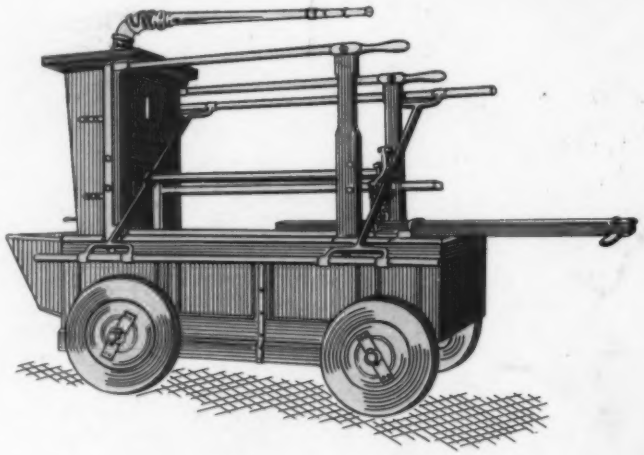
200' Pirsch Aluminum Alloy Ground Ladders

1,000' Capacity Hose Body

100 Gallon Booster Tank

THE HOIST IS THE SMOOTH, EFFICIENT PIRSCH HYDRO MECHANICAL TYPE, AMERICA'S FIRST ALL POWERED AERIAL HOIST.

PETER PIRSCH & SONS CO., KENOSHA, WIS.



HAYSEED

COURTESY THE HOME INSURANCE COMPANY

This was New York's first fire engine. Brought over from England in 1731, the Hayseed rumbled to the city's fires on wheels of solid wood rimmed with metal. It was 6'8" long, 22½" wide and had a deck 25" high. The goose-neck tub engine was not equipped with "suctions", but was filled by bucket and operated by pumping handles on the sides and auxiliary treadles on the deck.
Hose had not yet become practical. Water was played from a pipe on top of the air chamber over the rear wheels.

TODAY

The New York City Fire Department is a modern organization with modern equipment. EUREKA Fire Hose forms a substantial part of this equipment.

FOR GREATER PROTECTION
TO LIVES AND PROPERTY
_____SPECIFY

EUREKA *Streamlined* **FIRE HOSE**

EUREKA FIRE HOSE
DIVISION OF UNITED STATES RUBBER COMPANY
ROCKEFELLER CENTER, NEW YORK